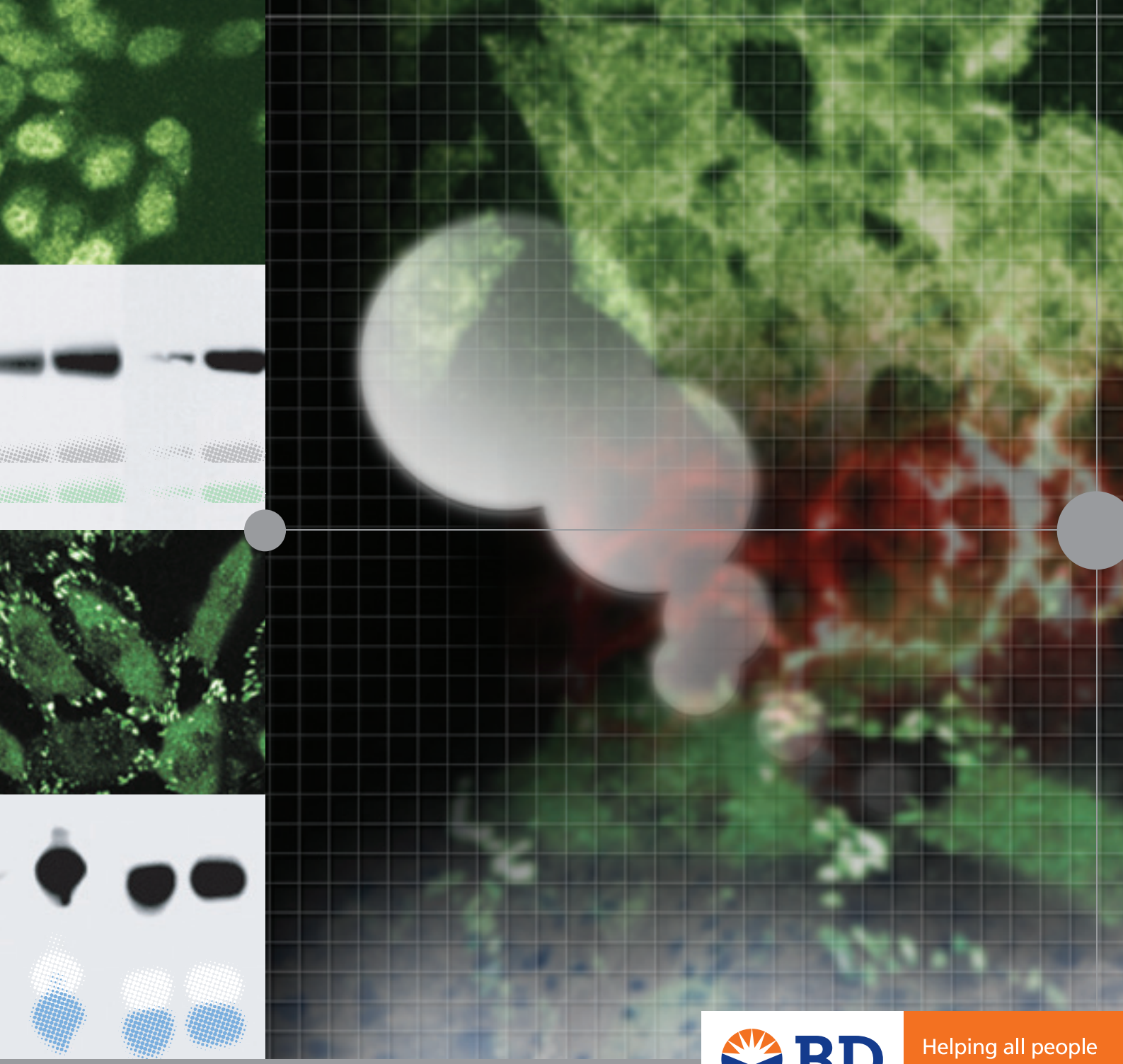
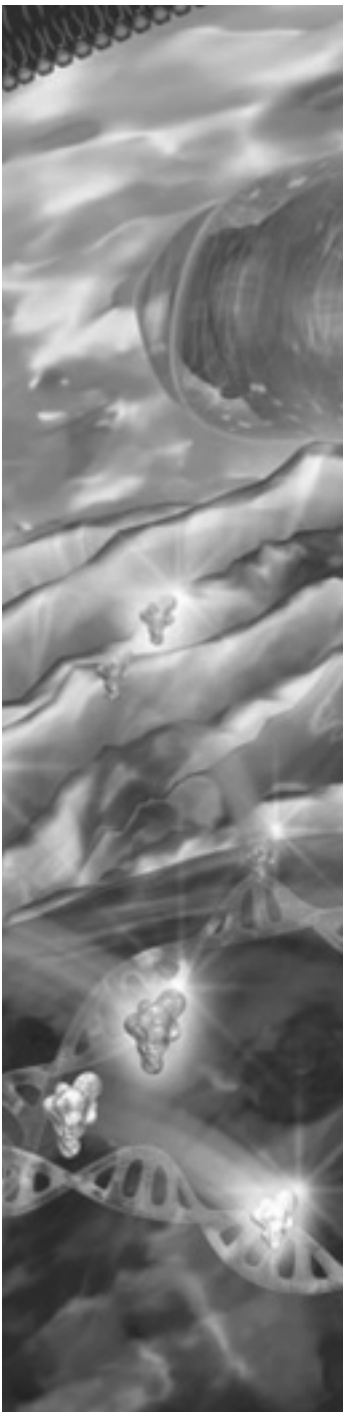


BD

Helping all people live healthy lives

Antibodies for Phospho-Protein Analysis



Antibodies for Phospho-Protein Analysis

細胞内シグナル伝達に関わっているタンパク質の活性化にはそのタンパク質に含まれているセリン／スレオニン、チロシン残基のリン酸化が大きく関わっており、様々なキナーゼやホスファターゼによって制御されています。リン酸化タンパク質は、T細胞／B細胞シグナリング、アポトーシス、細胞成長コントロール、細胞周期、細胞骨格の再構成、転写などの重要な細胞プロセスで中心的な役割を果たしています。

リン酸化タンパク質の解析に広く汎用されているウエスタンブロッティング法、その他免疫沈降法、免疫組織染色法などに有用なPhospho-Specific Antibody（リン酸化部位特異的認識抗体）シリーズ製品をご紹介いたします。

目　次

略号

REACT

Hu	Human
Ms	Mouse
Rat	Rat
D	Dog
C	Chicken
F	Frog

APPS (Applications)

WB	Western blotting
IF	Immunofluorescence
IHC	Immunohistochemistry
FCM	Flow cytometry
IP	Immunoprecipitation

商標

【お願いおよびご注意事項】

本カタログに掲載の価格は2006年07月現在の希望小売価格です。
価格は予告なく変更される場合がありますのであらかじめご了承下さい。
また、記載の価格に消費税は含まれていません。
ご注文は必ずカタログ番号でお願い致します。
商品の交換および返品は、品質管理上ご容赦願います。

製品一覧

Tyrosine, Serine, and Theronine Phosphorylation Detection

DESCRIPTION	CLONE	REACT	APPS	FORMAT	SIZE	CAT. NO.	希望小売価格	PAGE
Phosphotyrosine	PY20	Hu, Ms, Rat, D, C, F	WB, IF, IHC, IP	Purified	1 mg	610000	￥19,000	**5**
			WB, IP	Biotin	50μg	610007	￥43,000	**5**
			WB, IP	Biotin	150μg	610008	￥78,000	**5**
			WB	HRPO	50μg	610011	￥35,000	**5**
			WB	HRPO	150μg	610012	￥66,000	**5**
Phosphotyrosine	Polyclonal	Hu, Ms, Rat, D, C, F	WB, IF, IHC, FCM, IP	Purified	50μg	610009	￥31,000	**5**
			WB, IF, IHC, FCM, IP	Purified	150μg	610010	￥53,000	**5**
Phosphotyrosine	RC20	Hu, Ms, Rat, D, C, F	WB	AKP	50μg	610019	￥43,000	**5**
			WB	AKP	150μg	610020	￥78,000	**5**
			WB, IP	Biotin	50μg	610021	￥43,000	**5**
			WB, IP	Biotin	150μg	610022	￥78,000	**5**
			WB	HRPO	150μg	610024	￥66,000	**5**
Phosphotyrosine	PY69	Hu, Ms, Rat, D, C, F	WB, IF, IHC, FCM, IP	Purified	1 mg	610430	￥19,000	**5**
			IP	Agarose	500μl	610015	￥58,000	**5**
Phosphoserine	19	Hu, Rat	WB, IF	Purified	50μg	612546	￥31,000	**5**
			WB, IF	Purified	150μg	612547	￥53,000	**5**
Phosphoserine / Threonine	22a	Hu, Rat	WB, IF	Purified	50μg	612548	￥31,000	**5**
			WB, IF	Purified	150μg	612549	￥53,000	**5**

Phospho-Specific Antibodies

DESCRIPTION	CLONE	REACT	APPS	FORMAT	SIZE	CAT. NO.	希望小売価格	PAGE
Actopaxin (pS8)	J160-366	Hu	WB	Purified	0.1 mg	558374	￥68,000	**5**
Akt (pS472/pS473)	104A282	Hu, Ms, Rat	WB, IP	Purified	50μg	550747	￥38,000	**6**
Akt (pS473)	J177-204.20	Hu	WB	Purified	0.1 mg	558368	￥68,000	**6**
Akt (pT308)	J1-223.371	Hu, Ms	WB	Purified	0.1 mg	558316	￥68,000	**6**
Akt (pY326)	K7-642	Ms	WB	Purified	0.1 mg	558384	￥68,000	**6**
Bcr (pY177)	J52-309	Hu	WB	Purified	0.1 mg	558248	￥68,000	**6**
BLNK (pY84)	J117-1278	Hu	WB	Purified	0.1 mg	558366	￥68,000	**6**
Btk (pY551) & Itk (pY511)	24a/BTK (Y551)	Hu	WB	Purified	0.1 mg	558034	￥68,000	**7**
Caveolin (pY14)	56	Hu, Ms, Rat	WB, IF, IHC, FCM	Purified	50μg	611338	￥31,000	**7**
			WB, IF, IHC, FCM	Purified	150μg	611339	￥53,000	**7**
Caveolin 2 (pY27)	40/Caveolin 2	Hu	WB	Purified	0.1 mg	558364	￥68,000	**7**
c-Cbl (pY700)	47	Hu	WB, IF	Purified	50μg	612304	￥31,000	**8**
			WB, IF	Purified	150μg	612305	￥53,000	**8**
c-Cbl (pY774)	29/c-Cbl (Y774)	Hu	WB	Purified	0.1 mg	558035	￥68,000	**8**
CD3ζ (CD247) (pY142)	K25-407.69	Hu	WB	Purified	0.1 mg	558402	￥68,000	**8**
CD22 (BL-CAM) (pY828)	46	Hu	WB	Purified	0.1 mg	558029	￥68,000	**8**
CD22 (BL-CAM) (pY843)	12a	Hu	WB	Purified	0.1 mg	558030	￥68,000	**8**
CD45 (pS999)	J143-1270	Hu	WB	Purified	0.1 mg	558376	￥68,000	**9**
CD117 (c-kit) (pY568/pY570)	K39-686	Hu	WB	Purified	0.1 mg	558390	￥68,000	**9**
CD221 (IGF-1 Receptor) (pY950)	J95-626	Hu	WB	Purified	0.1 mg	558373	￥68,000	**9**

DESCRIPTION	CLONE	REACT	APPS	FORMAT	SIZE	CAT. NO.	希望小売価格	PAGE
Cdk1/Cdc2 (pY15)	44	Hu, Ms, Rat	WB, IF	Purified	50 µg	612306	¥31,000	**10**
			WB, IF	Purified	150 µg	612307	¥53,000	**10**
c-Jun (pS63)	2	Hu	WB, IHC	Purified	0.1 mg	558036	¥68,000	**10**
CREB (pS133)	J151-21	Hu	WB	Purified	0.1 mg	558359	¥68,000	**10**
CrkL (pY207)	K30-391.11.30	Hu	WB	Purified	0.1 mg	558386	¥68,000	**11**
β-Dystroglycan (pY892)	27.1	Hu, Ms	WB, IF, FCM	Purified	50 µg	612524	¥31,000	**11**
			WB, IF, FCM	Purified	150 µg	612525	¥53,000	**11**
EGFR (Activated Form)	74	Hu	WB, IF, IP	Purified	50 µg	610025	¥31,000	**11**
			WB, IF, IP	Purified	100 µg	612401	¥42,000	**11**
			WB, IF, IP	Purified	150 µg	610026	¥53,000	**11**
eNOS (pS1177)	19	Hu, Ms, Rat, D	WB, FCM	Purified	50 µg	612392	¥31,000	**12**
		Hu, Ms, Rat, D	WB, FCM	Purified	150 µg	612393	¥53,000	**12**
eNOS (pS633)	37	Hu, Ms	WB	Purified	50 µg	612664	¥31,000	**12**
		Hu, Ms	WB	Purified	150 µg	612665	¥53,000	**12**
eNOS (pT495)	31	Hu, Ms, Rat, D	WB	Purified	50 µg	612706	¥31,000	**12**
		Hu, Ms, Rat, D	WB	Purified	150 µg	612707	¥53,000	**12**
ERK1/2 (pT202/pY204)	20A	Hu, Ms, Rat	WB, IF, FCM	Purified	50 µg	612358	¥31,000	**12**
			WB, IF, FCM	Purified	150 µg	612359	¥53,000	**12**
Ezrin (pT567)	J37-954.281.307	Hu	WB	Purified	0.1 mg	558357	¥68,000	**13**
Ezrin (pY353)	I66-386	Hu	WB	Purified	0.1 mg	558033	¥68,000	**13**
FADD (pS194)	J119-857.36	Hu	WB	Purified	0.1 mg	558370	¥68,000	**13**
FAK (pY397)	18	Hu, Ms, Rat	WB, IF	Purified	50 µg	611806	¥31,000	**13**
			WB, IF	Purified	150 µg	611807	¥53,000	**13**
	14	Hu, Ms, Rat	WB, IF	Purified	50 µg	611722	¥31,000	**13**
			WB, IF	Purified	150 µg	611723	¥53,000	**13**
Fyn (pY528)/c-Src (pY530)	31	Hu, Ms	WB	Purified	50 µg	612668	¥31,000	**14**
			WB	Purified	150 µg	612669	¥53,000	**14**
gp130 (pS782)	6a/gp130 (pS782)	Hu	WB	Purified	0.1 mg	558096	¥68,000	**14**
GSK-3β (pY216)	13a	Hu, Ms, Rat, D	WB	Purified	50 µg	612312	¥31,000	**14**
			WB	Purified	150 µg	612313	¥53,000	**14**
Integrinβ3 (pY759)	7a	Hu, Ms, Rat	WB	Purified	50 µg	612528	¥31,000	**15**
			WB	Purified	150 µg	612529	¥53,000	**15**
IRS-1 (pY896)	K9-211	Hu	WB	Purified	0.1 mg	558378	¥68,000	**15**
IκBα(pS32/pS36)	39A1431	Hu	WB	Purified	50 µg	551818	¥38,000	**15**
JNK/SAPK (pT183/pY185)	41	Hu, Ms, Rat	WB, FCM	Purified	50 µg	612540	¥31,000	**16**
			WB, FCM	Purified	150 µg	612541	¥53,000	**16**
LAT (pY171)	I58-1169	Hu	WB	Purified	0.1 mg	558392	¥68,000	**16**
LAT (pY226)	J96-1238.58.93	Hu	WB	Purified	0.1 mg	558363	¥68,000	**16**
Lck (pY505)	4	Hu, Ms, Rat	WB, FCM	Purified	50 µg	612390	¥31,000	**16**
			WB, FCM	Purified	150 µg	612391	¥53,000	**16**
MARCKS (pS152/pS156)	I84-1233	Ms	WB	Purified	0.1 mg	558380	¥68,000	**17**
MEK1 (pS298)	J114-64	Hu, Ms	WB	Purified	0.1 mg	558375	¥68,000	**17**
NF-H Phospho-Specific	RNF404	Rat	WB	Purified	50 µg	551348	¥38,000	**17**
NF-H Phospho-Specific	RNF405	Rat	WB	Purified	50 µg	551958	¥38,000	**17**
NF-M Phospho-Specific	RNF403	Rat	WB	Purified	50 µg	551957	¥38,000	**18**
NF-M Phospho-Specific	RNF406	Rat	WB	Purified	50 µg	551962	¥38,000	**18**
NF-κB p65 (pS529)	K10-895.12.50	Hu	WB	Purified	0.1 mg	558393	¥68,000	**18**
NF-κB p65 (pS536)	J144-460	Hu	WB	Purified	0.1 mg	558377	¥68,000	**18**

DESCRIPTION	CLONE	REACT	APPS	FORMAT	SIZE	CAT. NO.	希望小売価格	PAGE
p38 MAPK (pT180/pY182)	36	Hu, Ms, Rat	WB	HRPO	50 µg	612552	¥35,000	**19**
			WB	HRPO	150 µg	612553	¥66,000	**19**
			WB, IF, FCM	Purified	50 µg	612288	¥31,000	**19**
			WB, IF, FCM	Purified	150 µg	612289	¥53,000	**19**
	30	Hu, Ms, Rat	WB, IF, FCM	Purified	50 µg	612280	¥31,000	**19**
			WB, IF, FCM	Purified	150 µg	612281	¥53,000	**19**
p53 (pS37)	J159-641.15.4	Hu	WB	Purified	0.1 mg	558369	¥68,000	**19**
p90 RSK1 (pS380)	20a	Hu	WB	Purified	50 µg	612692	¥31,000	**19**
			WB	Purified	150 µg	612693	¥53,000	**19**
p120 Catenin (pS268)	9a.390	Hu	WB	Purified	0.1 mg	558383	¥68,000	**20**
p120 Catenin (pS288)	17/catenin	Hu	WB	Purified	0.1 mg	558396	¥68,000	**20**
p120 Catenin (pT310)	22	Hu	WB	Purified	0.1 mg	558203	¥68,000	**20**
p120 Catenin (pT916)	1/Catenin	Hu	WB	Purified	0.1 mg	558398	¥68,000	**20**
P120 Catenin (pY96)	25a	Hu, Ms	WB	Purified	50 µg	612534	¥31,000	**20**
			WB	Purified	150 µg	612535	¥53,000	**20**
P120 Catenin (pY228)	21a	Hu, Ms	WB, IF, FCM	Purified	50 µg	612536	¥31,000	**20**
			WB, IF, FCM	Purified	150 µg	612537	¥53,000	**20**
P120 Catenin (pY280)	18	Hu, Ms, Rat	WB, IF	Purified	50 µg	612538	¥31,000	**20**
			WB, IF	Purified	150 µg	612539	¥53,000	**20**
p120 Catenin (pY291)	15A	Hu, Ms	WB, IF	Purified	50 µg	612690	¥31,000	**20**
			WB, IF	Purified	150 µg	612691	¥53,000	**20**
p130^{Cas} (pY249)	J169-757.12.2	Hu	WB	Purified	0.1 mg	558401	¥68,000	**20**
Paxillin (pY118)	30	Hu, Ms	WB	Purified	50 µg	611724	¥31,000	**21**
			WB	Purified	150 µg	611725	¥53,000	**21**
PDGFR β (pY1009)	J25-602	Hu, Ms	WB	Purified	0.1 mg	558321	¥68,000	**21**
PDGFR β (pY1021)	J105-412	Hu	WB	Purified	0.1 mg	558358	¥68,000	**21**
PDGFR β (pY771)	J23-618	Hu, Ms	WB	Purified	0.1 mg	558361	¥68,000	**21**
PDGFR β (pY857)	J24-425	Hu	WB	Purified	0.1 mg	558360	¥68,000	**21**
PDPK1 (pS241)	J66-653.44.22	Hu	WB	Purified	0.1 mg	558395	¥68,000	**21**
Phospholipase C γ (pY783)	27	Hu, Ms, Rat	WB	Purified	50 µg	612464	¥31,000	**22**
			WB	Purified	150 µg	612465	¥53,000	**22**
PKA$_{RII\beta}$ (pS114)	47	Hu, Ms, Rat	WB, FCM	Purified	50 µg	612550	¥31,000	**22**
			WB, FCM	Purified	150 µg	612551	¥53,000	**22**
	24	Hu, Ms, Rat	WB, FCM	Purified	50 µg	612572	¥31,000	**22**
			WB, FCM	Purified	150 µg	612573	¥53,000	**22**
PKC α (pT497)	K14-984	Hu	WB	Purified	0.1 mg	558379	¥68,000	**22**
PKC α (pT638)	35	Hu	WB	Purified	50 µg	612698	¥31,000	**22**
			WB	Purified	150 µg	612699	¥53,000	**22**
PKC θ (pT538)	19	Hu	WB	Purified	50 µg	612734	¥31,000	**23**
			WB	Purified	150 µg	612735	¥53,000	**23**
PLK1 (pT210)	K50-483	Hu	WB	Purified	0.1 mg	558400	¥68,000	**23**
PRK1 (pT774)/ PRK2 (pT816)	I85-1151	Hu	WB	Purified	0.1 mg	558399	¥68,000	**23**
Progesterone Receptor (pS190)	1154/F12	Hu	WB	Purified	0.1 mg	558387	¥68,000	**24**
Ras-GAP (pY460)	19A	Hu, Ms	WB	Purified	50 µg	612736	¥31,000	**24**
			WB	Purified	150 µg	612737	¥53,000	**24**
Rb (pS780)	J146-35	Hu	WB	Purified	0.1 mg	558385	¥68,000	**24**
Rb (pS807/pS811)	J112-906	Hu	WB	Purified	0.1 mg	558389	¥68,000	**24**
Rb Underphosphorylated	G99-549	Hu, Ms	WB, IP	Purified	0.1 mg	554164	¥55,000	**24**

DESCRIPTION	CLONE	REACT	APPS	FORMAT	SIZE	CAT. NO.	希望小売価格	PAGE
RNA Polymerase II Phospho-specific	CTD8A7	Hu	WB	Purified	50μg	552039	￥38,000	**25**
			WB	Purified	150μg	552041	￥68,000	**25**
	CTD4H8	Hu	WB	Purified	50μg	552040	￥38,000	**25**
			WB	Purified	150μg	552042	￥68,000	**25**
SLP-76 (pY113)	J80-373	Hu	WB	Purified	0.1 mg	558388	￥68,000	**25**
SLP-76 (pY128)	J141-668	Hu	WB	Purified	0.1 mg	558367	￥68,000	**25**
SLP-76 (pY145)	J81-1214.48	Hu	WB	Purified	0.1 mg	558362	￥68,000	**25**
Stat1 (pY701)	14	Hu, Ms	WB, IF, FCM, IP	Purified	50μg	612132	￥31,000	**26**
			WB, IF, FCM, IP	Purified	150μg	612133	￥53,000	**26**
	4a	Hu, Ms	WB, IF, FCM, IP	Purified	50μg	612232	￥31,000	**26**
			WB, IF, FCM, IP	Purified	150μg	612233	￥53,000	**26**
Stat2 (pY690)	7a/Stat2 (pY690)	Hu	WB	Purified	0.1 mg	558095	￥68,000	**26**
Stat3 (pS727)	92	Hu, Ms, Rat	WB, IF	Purified	50μg	612542	￥31,000	**26**
			WB, IF	Purified	150μg	612543	￥53,000	**26**
Stat3 (pY705)	4	Hu, Ms, Rat	WB, FCM	Purified	50μg	612356	￥31,000	**26**
			WB, FCM	Purified	150μg	612357	￥53,000	**26**
Stat4 (pY693)	38	Hu, Ms	WB	Purified	50μg	612738	￥31,000	**27**
			WB	Purified	150μg	612739	￥53,000	**27**
Stat5 (pY694)	Polyclonal	Hu	WB, IF, FCM	Purified	50μg	611818	￥31,000	**27**
			WB, IF, FCM	Purified	150μg	611819	￥53,000	**27**
	47	Hu	WB, IF, FCM	Purified	50μg	611964	￥31,000	**27**
			WB, IF, FCM	Purified	150μg	611965	￥53,000	**27**
Stat6 (pY641)	18	Hu	WB, IF, FCM	Purified	50μg	611566	￥31,000	**28**
			WB, IF, FCM	Purified	150μg	611567	￥53,000	**28**
	Polyclonal	Hu	WB, IF, FCM	Purified	50μg	611820	￥31,000	**28**
			WB, IF, FCM	Purified	150μg	611821	￥53,000	**28**
Syk (pY348)	I120-722	Hu	WB	Purified	50μg	558167	￥38,000	**28**
TBK1 (pS172)	J133-1171	Hu	WB	Purified	0.1 mg	558397	￥68,000	**29**
Tyk2 (pY1054/pY1055)	I114-617	Hu	WB	Purified	0.1 mg	558394	￥68,000	**29**
ZAP-70 (pY292)	J34-602	Hu	WB	Purified	0.1 mg	558365	￥68,000	**29**
ZAP-70 (pY319)	17a	Hu, Ms, Rat	WB, FCM	Purified	50μg	612574	￥31,000	**29**
			WB, FCM	Purified	150μg	612575	￥53,000	**29**
ZAP-70 (pY493)	1a/ZAP70 (pY493)	Hu	WB	Purified	0.1 mg	558247	￥68,000	**29**

Antibody Sampler Kit

注目する分子にターゲットを絞った抗体のセットです。それぞれの抗体は10μgずつ分注されています。
通常サイズの抗体を購入される前の簡易スクリーニングとしてご活用頂くのに最適です。
各Kitの詳細は製品概略（p30－p31）をご参照ください。

DESCRIPTION	SIZE	CAT. NO.	希望小売価格	PAGE
EGFR Activation Sampler Kit	各10μg	612476	￥67,000	**30**
MAP Kinase Activation Sampler Kit	各10μg	612544	￥67,000	**30**
Stat Activation Sampler Kit	各10μg	612477	￥67,000	**31**

製品概略

各製品の簡単なBackgroundとウエスタンブロッティング法 による解析データ例を掲載しています。
（解析データ例が掲載されていない製品も一部ございます。）
解析データはあくまで一例です。各品目につきましては、それぞれのテクニカルデータシートにてご確認ください。
テクニカルデータシートの入手方法はp36をご参照ください。

Tyrosine, Serine, and Theronine Phosphorylation Detection

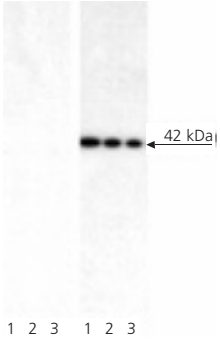
CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
610000	Phosphotyrosine	PY20	Ms IgG2b	Purified	1 mg	￥19,000
610007	Phosphotyrosine	PY20	Ms IgG2b	Biotin	50μg	￥43,000
610008	Phosphotyrosine	PY20	Ms IgG2b	Biotin	150μg	￥78,000
610011	Phosphotyrosine	PY20	Ms IgG2b	HRPO	50μg	￥35,000
610012	Phosphotyrosine	PY20	Ms IgG2b	HRPO	150μg	￥66,000
610009	Phosphotyrosine	Polyclonal		Purified	50μg	￥31,000
610010	Phosphotyrosine	Polyclonal		Purified	150μg	￥53,000
610019	Phosphotyrosine	RC20		AKP	50μg	￥43,000
610020	Phosphotyrosine	RC20		AKP	150μg	￥78,000
610021	Phosphotyrosine	RC20		Biotin	50μg	￥43,000
610022	Phosphotyrosine	RC20		Biotin	150μg	￥78,000
610024	Phosphotyrosine	RC20		HRPO	150μg	￥66,000
610430	Phosphotyrosine	PY69	Ms IgG2a	Purified	1 mg	￥19,000
610015	Phosphotyrosine	PY69	Ms IgG2a	Agarose	500μl	￥58,000
612546	Phosphoserine	19	Ms IgG1	Purified	50μg	￥31,000
612547	Phosphoserine	19	Ms IgG1	Purified	150μg	￥53,000
612548	Phosphoserine/Threonine	22a	Ms IgG1	Purified	50μg	￥31,000
612549	Phosphoserine/Threonine	22a	Ms IgG1	Purified	150μg	￥53,000

Phosphorylation of specific tyrosine residues is the result of activation or stimulation of their respective protein tyrosine kinases. The phosphorylatedproteins can be autophosphorylated kinases or certain cellular protein substrates that are regulated in oncogenesis or cell growth. Antibodies to phosphotyrosine provide one of the best tools for the detection and characterization of phosphotyrosine proteins.
Protein phosphorylation of serine and threonine residues is critical for the control of protein activity involved in various cellular events. An assortment of Ser/Thr kinases and phosphatases regulate serine and threonine phosphorylation in cell signaling pathways, such as growth factor, cytokine, chemokine, and stress response. Detection of serine and threonine phosphorylation can generally be monitored by antibodies that detect phosphoserine and phosphothreonine.

Actopaxin

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558374	Actopaxin (pS8)	J160-366	Ms IgG1, κ	Purified	0.1 mg	￥68,000

Actopaxin (also known as α-parvin or CH-ILKBP) is an adaptor protein that is found in focal adhesions (FA), where integrins in the cell membrane interact with the extracellular matrix, links the FA to the actin cytoskeleton, and is involved in the transduction of intracellular signals.The actopaxin molecule is composed almost entirely of two tandem calponin homology (CH) domains.The C-terminal CH domain mediates binding to paxillin,actin,and the serine/threonine kinases integrin-linked kinase and testicular protein kinase I.Serines in the N terminus of Actopaxin are phosphorylated by cyclin B/cdc2 during mitosis or by Erk during cell migration.This is consistent with the possibility that actopaxin is involved in regulating the organization of the cellular actin cytoskeleton.Actopaxin is expressed in nearly all tissues,whereas the β-parvin and γ-parvin have tissue-restricted expression.

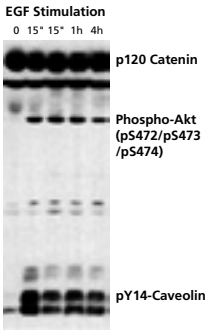


Western blot analysis of Actopaxin (pS8) in transformed human epithelioid carcinoma.
Lysates from control (left panel) and Nocodazole-treated (right panel) HeLa S3 cell line were probed with purified mouse anti-Actopaxin (pS8) monoclonal antibody at concentrations of 4.0,2.0,and 1.0μg/ml (Lanes 1,2,and 3,respectively). Actopaxin (pS8) is identified as a band of 42 kDa in the treated cells.

Akt

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
550747	Akt (pS472/pS473)	104A282	Ms IgG1	Purified	50 μg	￥38,000
558368	Akt (pS473)	J177-204.20	Ms IgG1, κ	Purified	0.1 mg	￥68,000
558316	Akt (pT308)	J1-223.371	Ms IgG1, κ	Purified	0.1 mg	￥68,000
558384	Akt (pY326)	K7-642	Ms IgG2a, κ	Purified	0.1 mg	￥68,000

Akt [also known as PKB (*P*rotein *K*inase *B*) or RAC-PK (*R*elated to the *A* and *C* *P*rotein *K*inases) is a family of serine/threonine kinases that contains a *P*leckstrin *H*omology (PH) domain. PH domains play important roles in signal transduction (*reviewed in Kandel & Hay,1999*). There are three known isoforms of Akt in mammalian cells [Akt1 (α), Akt2 (β) and Akt3 (γ)]; they are thought to be regulated similarly (*Ferrigno & Silver,1999*). Akt is activated by insulin and growth factors by a mechanism involving phosphoinositide 3-OH kinase.Phosphoinositide 3-OH kinases products bind to the PH domain, resulting in translocation of Akt to the plasma membrane and activation of Akt to phospho-Akt by upstream kinases. Akt is phosphorylated within the activation loop at threonine 308, near the activation loop at tyrosines 315 and 326 (Y326), and in the C-terminus at serine 473 (*Chen et al.,2001*). Phospho-Akt promotes cell survival by inhibiting apoptosis.Specifically, phospho-Akt1 has been shown to phosphorylate Bad, a member of the Bcl-2 family that promotes cell death (reviewed in Alessi et al.,1996). This phosphorylation results in the inactivation of the proapoptotic function of Bad.The Akt molecule is thus considered to link extracellular survival signals (growth factors) with the apoptotic machinery (Bad) (*Alessi et al.,1996*). Akt is also a key mediator of the metabolic effects of insulin (*Alessi et al.,1996*). Additionally, Akt has been referred to as an oncogene because it has increased activity in a number of tumors (*Kandel & Hay,1999*).

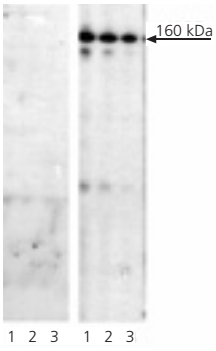


Western blot analysis using anti-Akt (pS472/ pS473/pS474) (559029) and anti-Caveolin (pY14) (611338) in A431 cells treated with EGF.

Bcr

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558248	Bcr (pY177)	J52-309	Ms IgG2b, κ	Purified	0.1 mg	￥68,000

The *BCR* (breakpoint clustoer region) gene was first identified by its presence in the *BCR-ABL* fusion oncogene of the Philadelphia chromosome associated with chronic myelogenous leukemia. The Bcr protein has serine/threonine kinase activity and participates in platelet-derived growth factor (PDGF)-mediated signal transduction. The Tyrosine 177 (Y177) of the Bcr portion of Bcr-Abl plays an important role in the induction of myeloproliferative disease.

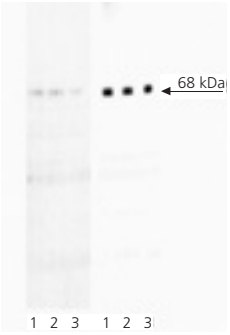


Western blot analysis of Bcr (pY177).
Lysates from control (left panel) and PDGF-treated (right panel) NIH/3T3 mouse embryo cell line were probed with mAb J52-309 at 0.25, 0.0125,and 0.0625 μg/ml (lanes 1,2,and 3,respectively). Bcr (pY177) is identified as a band of 160 kDa in treated cells.

BLNK

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558366	BLNK (pY84)	J117-1278	Ms IgG2b, κ	Purified	0.1 mg	￥68,000

B cell activation is initiated by crosslinking the B cell receptor, which leads to activation of non-receptor protein tyrosine kinases (PTK), including Btk, Syk, and three Src kinases, Fyn, Lyn, and Blk. Activated PTKs then phosphorylate multiple cellular proteins involved in B lymphocyte signaling. Syk is responsible for the tyrosine phosphorylation of *B* cell *l*ink*e*r protein (BLNK), a member of the SLP-76 family of adapter proteins. Phosphorylation of human BLNK at tyrosines 84, 178, and 189 (Y84, Y178, and Y189) creates docking sites for PLC γ 2, leading to the activation of downstream signaling pathways.

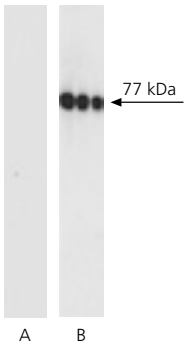


Western blot analysis of BLNK (pY84) in human Burkitt's lymphoma.
Lysates from control (left panel) and hydrogen peroxide-activated (right panel) Ramos cells were probed with purified mouse anti-BLNK (pY84) monoclonal antibody) at concentrations of 0.125, 0.0625, and 0.032 μg/ml (Lanes 1, 2, and 3, respectively). BLNK (pY84) is identified as a band of about 68 kDa in the treated cells.

Btk

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558034	Btk (pY551) & Itk (pY511)	24a/BTK (Y551)	Ms IgG1	Purified	0.1 mg	￥68,000

Bruton's tyrosine kinase (Btk) is a nonreceptor tyrosine kinase whose function is critical for proper B cell development and signaling. The activity of Btk is regulated by Src mediated phosphorylation of the kinase domain at Tyr-551. This event induces Btk kinase activity and subsequent autophosphorylation at Tyr-223. Phosphorylated Btk then associates with the cell membrane via the interaction of the PH domain with phosphatidylinositol 3,4, 5-triphosphate. The Tec family kinase Itk plays a critical role in signal transduction downstream of the T cell antigen receptor and has been implicated in the activation of phospholipase C-gamma1, a key regulator of calcium mobilization and extracellular signal-regulated kinase (ERK) activation. Itk is regulated by an activating transphosphorylation event in which Tyrosine 511 in the kinase domain is phosphorylated by Lck

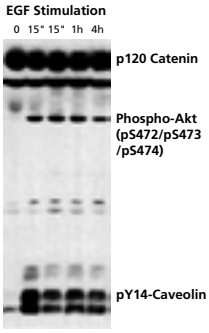


Western blot analysis of Btk (pY551). Raji cells were either left untreated (A) or treated with pervanadate (B). Blots were probed with anti-Btk (pY551) antibody at concentrations of 0.5, 0.25, and 0.125 μg/ml. Btk (pY551) is identified as a band of ~77 kDa

Caveolin

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
611338	Caveolin (pY14)	56	Ms IgG1	Purified	50 μg	￥31,000
611339	Caveolin (pY14)	56	Ms IgG1	Purified	150 μg	￥53,000

Caveolin (VIP21) localizes to non-clathrin membrane invaginations (caveolae) on the inner surface of the plasma membrane. In addition, it is present in the trans-Golgi network (TGN) and in apically and basolaterally destined transport vesicles. Caveolin is a transmembrane adaptor molecule that recognizes GPI-linked proteins and interacts with downstream cytoplasmic signaling molecules, such as src-family tyrosine kinases and hetero-trimeric G proteins. Caveolin forms large lipid-binding oligomers, which are thought to play a role in caveolae formation. It may also function as a scaffolding protein, which organizes signaling molecules. This functional role is supported by the fact that caveolin interacts directly with inactive ras and G-protein α subunits. Phosphorylation of caveolin at Tyr-14, Ser-88, and other residues in v-src-transformed cells leads to flattening, aggregation, and fusion of caveolae and caveolae-derived vesicles. Thus, caveolin is the principle protein of caveolae and may be involved in v-src-mediated cellular transformation.

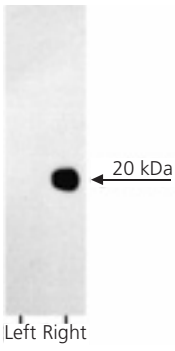


Western blot analysis using anti-Akt (pS472/ pS473/pS474) (559029) and anti-Caveolin (pY14) (611338) in A431 cells treated with EGF.

Caveolin 2

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558364	Caveolin 2 (pY27)	40/Caveolin 2	Ms IgG1, κ	Purified	0.1 mg	￥68,000

The caveolins are a family of transmembrane proteins that are required for the structural integrity and functions of non-clathrin membrane invaginations (caveolae) on the inner surface of the plasma membrane. The intracellular functions of caveolae include roles in cholesterol homeostasis, signal transduction, and vesicle transport. Caveolins 1 and 2 form hetero-oligomers in the endoplasmic reticulum, Golgi complex and trans-Golgi-derived transport vesicles in most tissues. The highest levels of these complexes are found in adipocytes, fibroblasts, and endothelial, epithelial, and smooth muscle cells. Upon phosphorylation at tyrosine 19 or 27, caveolin 2 dissociates from caveolin 1, and the two phosphorylated forms of caveolin 2 localize to distinct areas of the cell. There are reports that internalization of caveolae may be regulated by tyrosine phosphorylation of caveolin 2.

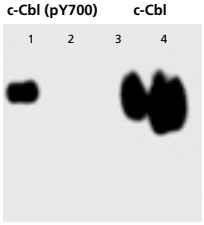


Western blot analysis of Caveolin 2 (pY27) in human endothelial cells. Lysates from pervanadate-stimulated endothelial cells (Cat. No. 611667) were either treated with 50 μg/ml alkaline phosphatase (ICN Biomedicals) for 30 minutes at 37℃ (left lane) or untreated (right lane), then probed with purified 40/Caveolin 2 mAb at 0.5 μg/ml. Caveolin 2 (pY27) is identified as a band of 20 kDa in the untreated lysate.

c-Cbl

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612304	c-Cbl (pY700)	47	Ms IgG1	Purified	50 μg	￥31,000
612305	c-Cbl (pY700)	47	Ms IgG1	Purified	150 μg	￥53,000
558035	c-Cbl (pY774)	29/c-Cbl (Y774)	Ms IgG1	Purified	0.1 mg	￥68,000

Cbl (*C*asitas *B*-lineage *l*ymphoma) was identified in the genome of a transforming retrovirus from a mouse pre-B lymphoma. The cellular gene product c-Cbl is one of numerous Cbl-related proteins found in vertebrate and invertebrate organisms. It is an 120-kDa adapter protein that contains multiple functional domains, including a RING finger motif, a tyrosine kinase-binding (TKB) domain, and a proline-rich region. The TKB domain directly interacts with specific auto-phosphorylation sites in activated protein-tyrosine kinases (PTK). Through the RING finger motif, c-Cbl recruits and activates an E2 ubiquitin-conjugating enzyme, thus targeting the activated PTK for protein degradation. The proline-rich region contains SH3 domain-binding and 14-3-3 protein-binding motifs. c-Cbl is also phosphorylated at tyrosines 700, 731, and 774 (Y774) by Syk- and Src-family kinases after the stimulation of some integrins and a wide variety of receptors for antigens, immunoglobulins, growth factors, cytokines, and hormones. In turn, the phosphorylated Y774 site interacts with the SH2 domain of the CRK adapter protein. The c-Cbl adapter protein is expressed in the cytoplasm in all tissues, with especially high levels of expression in hematopoietic cells. Through its many functional sites, c-Cbl plays key roles in the positive and negative regulation of vital cell functions, including T Cell Receptor-mediated cellular immune responses.

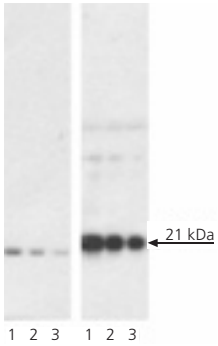


Western blot analysis using antic-Cbl (610441) and anti-c-Cbl (pY700) (612304) in Jurkat T cells treated with either pervanadate (lanes 1 and 3) or alkaline phosphatase (lanes 2 and 4).

CD3 ζ (CD247)

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558402	CD3 ζ (CD247) (pY142)	K25-407.69	Ms IgG1, κ	Purified	0.1 mg	￥68,000

The T cell receptor (TCR), expressed by thymus-derived lymphocytes (T lymphocytes), is a multi-component cell-surface complex responsible for recognizing antigen in the context of MHC molecules. The antigen-specific binding component of the TCR, Ti, is a heterodimer of the variable Ig-like subunits α and β or γ and δ. Ti is non-covalently associated with an invariant set of molecules referred to as the CD3 polypeptides, γ, δ, ε, and ζ. The CD3 ζ polypeptide (CD3 ζ) was named CD247 at the 7th Human Leukocyte Differentiation Antigens Workshop. CD3 appears early in thymocyte differentiation and remains expressed on all mature T lymphocytes. After antigen recognition by the TCR, CD3 ζ is the primary intracellular signal transducing subunit. It contains three ITAMs (*I*mmunoreceptor *T*yrosine-based *A*ctivation *M*otifs), each of which contains a pair of tyrosine residues that are phosphorylated by Lck and Fyn and are required for signal propagation. The molecular weight of CD3 ζ is 16 kDa, and it is also observed as 32-kDa homodimers or as heterodimers with the γ chain of Fc receptors. Upon phosphorylation, the CD3 ζ monomer undergoes an apparent shift in electrophoretic mobility up to 21 kDa.

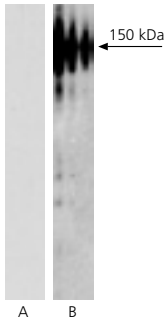


Western blot analysis of CD3 ζ (CD247) (pY142) in human T lymphocytes.
Lysates from control (left panel) and anti-CD3-plus anti-CD28-activated (Cat. No. 555329 and 555725, respectively; right panel) Jurkat cells were probed with purified mouse anti-CD3 ζ (CD247) (pY142) at concentrations of 0.5, 0.25, and 0.125 μ g/ml (Lanes 1, 2, and 3, respectively). CD3 ζ (CD247) (pY142) is identified as a band of 21 kDa in the treated cells.

CD22(BL-CAM)

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558029	CD22 (pY828)	46	Ms IgG1	Purified	0.1 mg	￥68,000
558030	CD22 (pY843)	12a	Ms IgG1	Purified	0.1 mg	￥68,000

CD22 is a glycosylated type I integral membrane protein expressed in B cells. Upon cross linking of the B cell antigen receptor, CD22 is phosphorylated leading to the recruitment of PLC γ, PI3K, Syk and Grb2 thus causing signal transduction. Tyrosine phosphorylation of residue 843 is required for efficient SHP-1 recruitment to the cytoplasmic tail of CD22.

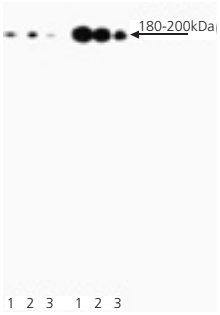


Western blot analysis of CD22 (pY843).
Daudi cells were either left untreated (A) or treated with pervanadate (B). Blots were probed with anti-
CD22(pY843) antibody at concentrations of 0.0625, 0.03125, and 0.0156 μ g/ml. CD22 (pY843) is identified as a band of ～ 150 kDa

CD45

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558376	CD45 (pS999)	J143-1270	Ms IgG1, κ	Purified	0.1 mg	￥68,000

CD45 (also known as leukocyte common antigen, Ly-5, or T200) is found on all hematopoietic cells except those of the erythrocyte lineage. The N-terminal domain is a large glycosylated extracellular region of variable length (390-542 amino acids) derived by the alternative splicing of at least three exons (4, 5, or 6). This variation accounts for the different isoforms of CD45 (180-220 kDa). The remainder of the molecule includes a short transmembrane region followed by a large highly conserved cytoplasmic domain that contains two tandem protein tyrosine phosphatase (PTPase) domains (D1 and D2). Both domains are required for optimal PTPase activity and show significant homology with other receptor-like and cytoplasmic PTPases, but only D1 has phosphatase activity. CD45 plays a critical role in antigen receptor-induced responses of T and B lymphocytes by regulating the Src-family protein tyrosine kinases that initiate their signaling cascades. It is also involved in the regulation of lymphocyte responses to cytokines and chemokines and some functions of myeloid cells. Multiple phosphorylations occur in a serine-rich sequence in D2, but how they affect CD45's activity has not yet been revealed.

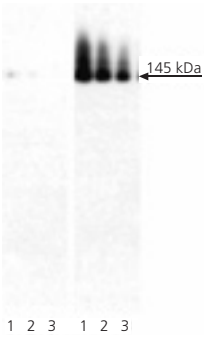


Western blot analysis of CD45 (pS999) in human T leukemia.
Lysates from Jurkat cell line were probed with purified mouse anti-CD45 (pS999) monoclonal antibody at concentrations of 0.125, 0.0625, and 0.0313 μg/ml (Lanes 1, 2, and 3, respectively) with (left panel) or without (right panel) alkaline phosphatase treatment. CD45 (pS999) is identified as a band of 180-220 kDa in the untreated cells.

CD117 (c-kit)

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558390	CD117 (c-kit)(pY568/pY570)	K39-686	Ms IgG1, κ	Purified	0.1 mg	￥68,000

c-Kit (also known as CD117) is a transmembrane tyrosine kinase receptor that binds stem cell factor (SCF, also known as kit ligand, mast cell growth factor, and steel factor) and is involved in the regulation of a wide range of tissues at various developmental stages. c-Kit plays major roles in the regulation of hematopoiesis and germ cell proliferation and survival. Mutations of c-kit are associated with a wide variety of cancers and developmental diseases. Upon activation by its ligand, c-Kit dimerizes and autophosphorylates at multiple cytoplasmic sites, which bind to downstream signal transduction molecules. Specifically, the phosphorylated tyrosines 568 and 570 (pY568/pY570) in the juxtamembrane domain of c-Kit bind to several signaling molecules, including the adapter proteins SHC and APS; the tyrosine kinases Lyn, Fyn, and CHK; and the protein tyrosine phosphatase SHP-2, all of which may interact to regulate SCF signaling.

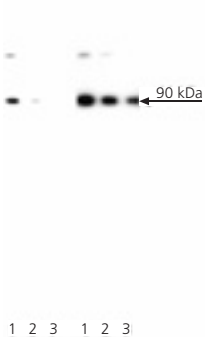


Western blot analysis of c-Kit (pY568/pY570) in human erythroleukemia.
Lysates from control (left panel) and SCF-treated (Cat. No. 354105, right panel) HEL cells were probed with purified mouse anti-c-Kit (CD117) (pY568/pY570) monoclonal antibody at concentrations of 0.125, 0.0625, and 0.032 μg/ml (lanes 1, 2, and 3, respectively). c-Kit (pY568/ pY570) is identified as a band of 145 kDa in the treated cells.

CD221 (IGF-1 Receptor)

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558373	CD221 (IGF-1 Receptor)(pY950)	J95-626	Ms IgG2b, κ	Purified	0.1 mg	￥68,000

Insulin-like growth factor-1 (IGF-1) receptor, or CD221, is a receptor tyrosine kinase that has high affinity for IGF-1 and low affinity for insulin and IGF-2. Each transmembrane protein complex is formed from a pair of 1367 amino-acid precursor proteins. After the 30 amino-acid signal sequences are removed, the paired polypeptides are cleaved to derive an α and β chain from each. The two extracellular α chains form the ligand-binding domain, while the transmembrane-and-intracellular β chains carry the kinase activity. Upon stimulation by its ligand, IGF-1 receptor autophosphorylates multiple tyrosine sites in its β chains and phosphorylates other signaling mediators that regulate cell growth, development, and neoplastic transformation. Phosphorylation of the tyrosine 950 (Y950) of IGF-1 receptor β chain signals up-regulation of the transcriptional activator protein Id2.

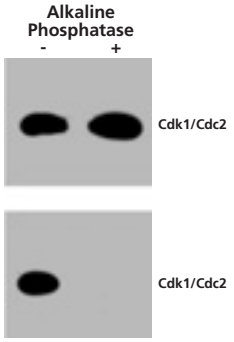


Western blot analysis of IGF-1 receptor (pY950) in transformed human epithelial cells.
Lysates from control (left panel) and IGF-I-treated (Cat. No. 354037, right panel) 293 fetal kidney cell line were probed with purified mouse anti-IGF-1 receptor (pY950) monoclonal antibody at concentrations of 0.125, 0.0625, and 0.03125 μg/ml (Lanes 1, 2, and 3, respectively). IGF-1 receptor (pY950) is identified as a band of 90 kDa in the treated cells.

Cdk1/Cdc2

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612306	Cdk1/Cdc2 (pY15)	44	Ms IgG1	Purified	50 μg	￥31,000
612307	Cdk1/Cdc2 (pY15)	44	Ms IgG1	Purified	150 μg	￥53,000

Progression of the mammalian cell cycle is regulated by phosphorylation of many key proteins. Several classes of cyclins (A-E) act as regulatory subunits for cyclin-dependent kinases (cdks). Cdc2/Cdk1 ($p34^{cdc2}$) is the catalytic subunit of the maturation promoting factor (MPF), which includes the regulatory subunit cyclin B. During late S and G2 phase, cyclin B synthesis increases, allowing it to bind Cdc2. This begins the transition into M-phase of the mammalian cell cycle by initiating a series of phosphorylation and dephosphorylation events that lead to activation of the Cdc2/cyclin B complex. After binding to cyclin B, cdc2 is phosphorylated on Thr-14, by Myt1, and Tyr-15, by wee1 or mik1, yielding an inactive pre-MPF complex during G2 phase. Phosphorylation of cdc2 on Thr-161 is performed by a cdk7/cyclin H complex and is necessary for activation of the cdc2 complex. Dephosphorylation of Thr-14 and Tyr-15 by CDC25 occurs at the end of G2 phase and completes activation of the cdc2/Cyclin B complex and facilitates entry into mitosis. During mitosis, cyclin B is targeted for degradation and Cdc2 becomes inactive again.

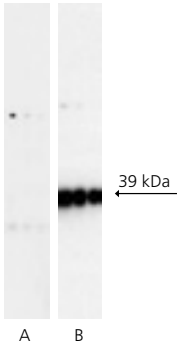


Saos-2 lysate was either left untreated (-) or treated (+) with 50 μg/ml alkaline phosphatase for 30 minutes at 37℃. The top panel was probed with Cdk1/Cdc2 (610037) and the bottom was probed with Cdc2 (pY15) (612306).

c-Jun

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558036	c-Jun (pS63)	2	Ms IgG1	Purified	0.1 mg	￥68,000

The **a**ctivator **p**rotein transcription factor (AP-1) was identified as a protein that recognizes specific sequences in the *cis*-control regions of the SV40 virus and the human metallothionein IIA gene. AP-1 is composed of protein products of two different gene families: *jun* and *fos*. The AP-1 transcription factor is either a homodimer of Jun proteins or a heterodimer of Jun and Fos proteins. The transcriptional activity of Jun is enhanced by phosphorylation in its activation domain at Ser63 and Ser73. Phosphorylation at both sites is necessary for stimulating the activating function of Jun. Jun is phosphorylated by JNK protein kinases that are activated by the same signals that potentiate Jun activity.

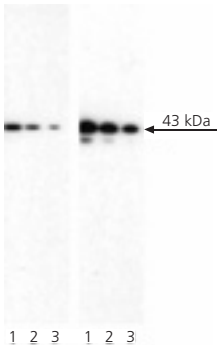


Western blot analysis of c-Jun (pS63).
Human endothelial cells were either left untreated (A) or treated with calyculin A (B). Blots were probed with anti-c-jun (pS63) antibody at concentrations of 0.063, 0.032, and 0.016 μg/ml. c-Jun (pS63) is identified as a band of ～39 kDa

CREB

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558359	CREB (pS133)	J151-21	Ms IgG1, κ	Purified	0.1 mg	￥68,000

Transcription of various genes is regulated by the cyclic AMP (cAMP) signal transduction pathway through a family of c*A*MP *R*esponsive *E*lement (CRE)-Binding transcription factors that include CREB, CREM (*CRE M*odulator), and ATF-1 (*A*ctivating *T*ranscription *F*actor *1*). The genes for these transcription factors encode multiple isoforms that are created by alternative splicing, alternative initiation codons, and alternative intronic promoters. Homo- and heterodimers of these members of the basic domain-and-leucine zipper superfamily of proteins bind the palindromic TGACGTCA sequence of CRE. CREB is expressed in all somatic cells, and many different stimuli activate CREB by phosphorylation of its serine 133 (S133). The transcriptional activity and specificity of CREB are regulated by the signaling pathways initiated by the various stimuli. Transcriptional regulation by CREB family members has been implicated in many physiological responses to extracellular and environmental stimuli, such as memory, tissue growth and development, and homeostasis.

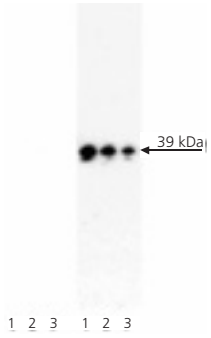


Western blot analysis of CREB (pS133) in human T leukemia.
Lysates from control (left panel) and PMA-activated (right panel) Jurkat cells were probed with purified mouse anti-CREB (pS133) monoclonal antibody at concentrations of 0.25, 0.125, and 0.06 μg/ml (Lanes 1, 2, and 3, respectively). CREB (pS133) is identified as a band of 43 kDa in the treated cells. Treatment with lambda phosphatse removes all bands in blots of control and PMA-activated lysates (data not shown), demonstrating the antibody's specificity for the phosphorylated protein.

CrkL

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558386	CrkL (pY207)	K30-391.11.30	Ms IgG2a, κ	Purified	0.1 mg	￥68,000

*Crk-L*ike (CrkL) is an adaptor protein that is preferentially expressed in hematopoietic cells and is encoded by a gene that is homologous to the viral oncogene *v-crk* (chicken tumor virus no. 10 *r*egulator of *k*inase). Its SH2 and SH3 domains bind to a variety of effector proteins, such as paxillin, p130Cas, c-Cbl, c-Abl, and C3G. These interactions are involved in the regulation of cellular migration, adhesion, and transformation. Tyrosine 207 (Y207) of CrkL is phosphorylated in activated hematopoietic cells and in chronic myelogenous leukemia. This site may be a negative regulator of protein complex formation and biological activity.

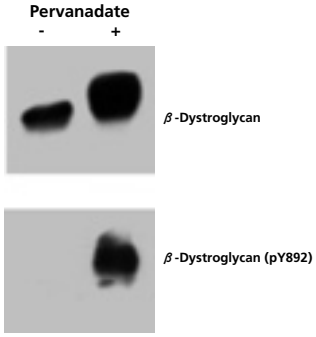


Western blot analysis of CrkL (pY207) in human chronic myelogenous leukemia.
Lysates from the K-562 cell line (Cat. no. 611550) were probed with purified mouse anti-CrkL (pY207) monoclonal antibody at concentrations of 0.0125, 0.00625, and 0.00312 μg/ml (Lanes 1, 2, and 3, respectively) with (left panel) or without (right panel) lambda protein phosphatase treatment. CrkL (pY207) is identified as a band of 39 kDa in the untreated cells.

β-Dystroglycan

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612524	β-Dystroglycan (pY892)	27.1	Ms IgG1	Purified	50 μg	￥31,000
612525	β-Dystroglycan (pY892)	27.1	Ms IgG1	Purified	150 μg	￥53,000

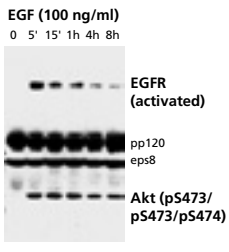
Formation of the neuromuscular junction (NMJ) requires interaction between specific extracellular matrix proteins, intracellular cytoskeletal elements, and clustering of specific neurotransmitter receptors. Dystroglycans, α-dystroglycan and β-dystroglycan, are two members of the dystrophin-associated complex, an essential element of NMJs. These proteins are encoded by the same gene, but post-translationally cleaved to produce a 156 kDa extracellular peripheral membrane protein, α-dystroglycan, and a 43 kDa transmembrane protein, β-dystroglycan. β-dystroglycan contains a PPxY motif that promotes binding to WW domain-containing proteins, such as utrophin and dystrophin. Phosphorylation at Tyr-892 within the PPxY motif inhibits β-dystroglycan interaction with WW domain proteins. Dystroglycans are expressed highest in heart and muscle, but are also found in non-muscle tissues. β-dystroglycan recruits dystrophin to the sarcolemma, and interactions between β-dystroglycan and caveolin-3 may regulate this recruitment. Mice deficient in dystroglycans have severly disorganized NMJs, and have reductions in the concentration of laminin, perlecan, and AChE at the synaptic basement membrane of NMJs. Thus, dystroglycans may have important extracellular and intracellular roles during NMJ assembly.



EGFR

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
610025	EGFR (Activated Form)	74	Ms IgG1	Purified	50 μg	￥31,000
612401	EGFR (Activated Form)	74	Ms IgG1	Purified	100 μg	￥42,000
610026	EGFR (Activated Form)	74	Ms IgG1	Purified	150 μg	￥53,000

Epidermal Growth Factor (EGF) elicits a variety of cellular responses that are initiated by EGF receptor (EGF-R) binding and activation of intrinsic tyrosine kinase activity. Following ligand binding, EGF receptor is autophosphorylated and, in turn, phosphorylates several other endogenous proteins, including phospholipase Cγ. These events initiate a number of intracellular responses that include increased levels of intracellular Ca^{2+} and transient expression of the nuclear oncogene products c-Myc and c-Fos. This antibody is unique in that it reacts only with the tyrosine phophorylated (activated) EGF receptor.

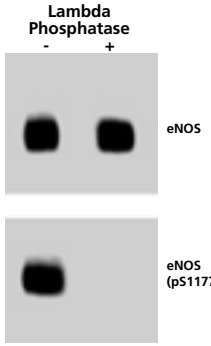


Western blot analysis using anti-Activated EGFR (610025) and anti-Akt (pS472/pS473/pS474) (559029) in A431 cells treated with EGF.

eNOS

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612392	eNOS (pS1177)	19	Ms IgG1	Purified	50μg	¥31,000
612393	eNOS (pS1177)	19	Ms IgG1	Purified	150μg	¥53,000
612664	eNOS (pS633)	37	Ms IgG1	Purified	50μg	¥31,000
612665	eNOS (pS633)	37	Ms IgG1	Purified	150μg	¥53,000
612706	eNOS (pT495)	31	Ms IgG1	Purified	50μg	¥31,000
612707	eNOS (pT495)	31	Ms IgG1	Purified	150μg	¥53,000

Nitric oxide synthase (NOS), a cell-type specific enzyme, catalyzes the synthesis of nitric oxide (NO). NO is a short-lived radical that transmits signals involved in vasorelaxation, neurotransmission, and cytotoxicity. In neurons and endothelial cells, constitutive NOS (cNOS) is activated by agonists that increase intracellular Ca^{2+} levels and enhance calmodulin binding. Neuronal NOS (nNOS) and endothelial NOS (eNOS) have recognition sites for NADPH, FAD, FMN, and calmodulin. eNOS has a unique N-myristylation consensus sequence that may explain its membrane localization. Various protein kinases have been implicated in regulation of eNOS activity, including AMPK, PKA, PKB/Akt, PKC, and CaM Kinase II. During VEGF stimulation, eNOS is transiently phosphorylated at Ser-1177 by PKB/akt and dephosphorylated at Thr-495. At later time points, VEGF stimulation leads to an increase in Thr-495 phosphorylation mediated by PKC and a decrease in Ser-1177 phosphorylation. In addition, Ser-633 and Ser-1177 are phosphorylated by PKA and PKG in vitro. Thus, eNOS activity may be regulated through complex phosphorylation events mediated by multiple kinases at various phosphorylation sites.
Human Endothelial Cells are routinely tested as a positive control for eNOS (pS1177) mAb. 100% homology is detected for immunogen sequence in human, mouse, rat, dog and bovine. Cross-reactivity with other species is expected but not confirmed.

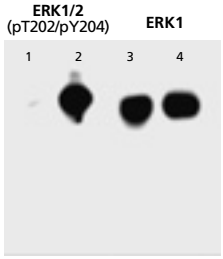


Human Endothelial lysate was either left untreated (-) or treated (+) with 150U/ml of lambda phosphatase for 1 hour at 37℃. The top panel was probed with eNOS (610296). The bottom panel was probed with eNOS (pS1177) (612392).

ERK

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612358	ERK1/2 (pT202/pY204)	20A	Ms IgG1	Purified	50μg	¥31,000
612359	ERK1/2 (pT202/pY204)	20A	Ms IgG1	Purified	150μg	¥53,000

The family of serine/threonine kinases known as ERKs (extracellular signal regulated kinases) or MAPKs (mitogen-activated protein kinases) are activated after cell stimulation by a variety of hormones and growth factors. A myriad of proteins, such as kinases, phosphatases, transcription factors, and cytoskeletal proteins, are substrates for the active ERK. These proteins implicate ERK function in the control of cell proliferation and differentiation, as well as in the regulation of the cytoskeleton. Activation of ERK is normally transient and cells possess dual specificity phosphatases which are responsible for its down-regulation. ERK1 is a 44kDa member of the ERK family and shares 85% homology with ERK2. In rat, these proteins are phosphorylated at T202/Y204 and T183/Y185, respectively. ERK1 and 2 have been implicated in growth factor signaling, as well as other signal transduction pathways. Growth factor stimulation leads to activation of Ras and Raf, leading to phosphorylation of MEK1 (MAPK/ERK kinase) which, in turn, activates ERK via dual phosphorylation. Thus, ERK1 and 2 are critical kinases in multiple signal transduction pathways that regulate cell growth and differentiation.

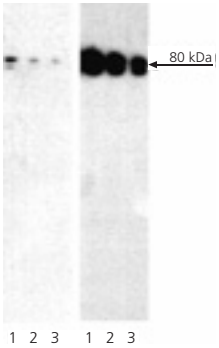


Western blot analysis using anti-ERK1 (610030) and anti-ERK1/2 (pT202/pY204) (612358) in A431 cells either untreated (lanes 1 and 3) or treated with EGF (lanes 2 and 4).

Ezrin

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558357	Ezrin (pT567)	J37-954.281.307	Ms IgG1, κ	Purified	0.1 mg	￥68,000
558033	Ezrin (pY353)	I66-386	Ms IgG1	Purified	0.1 mg	￥68,000

Ezrin is a member of the ERM (*E*zrin-*R*adixin-*M*oesin) family of proteins that function as crosslinkers between the actin cytoskeleton and the plasma membrane. Phosphorylation of the threonine 567 (T567) in the C-terminal F actin-binding domain activates the conversion of Ezrin from a dormant soluble form in the cytosol to a membrane- and actin-binding conformation.

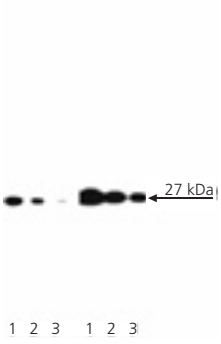


Western blot analysis of Ezrin (pT567) in human epidermis.
Lysates from control (left panel) and human epidermal growth factor-treated (right panel) human A-431 epidermoid carcinoma (Cat. no. 611447 and 611448, respectively) were probed with purified mAb J37-954.281.307 at concentrations of 0.03125, 0.0156, and 0.0078 µg/ml (lanes 1, 2, and 3, respectively). Ezrin (pT567) is identified as a doublet of 80 kDa in the treated cells.

FADD

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558370	FADD (pS194)	J119-857.36	Ms IgG1, κ	Purified	0.1 mg	￥68,000

During apoptosis, cells exhibit morphological signs of the death process: cell shrinkage, membrane blebbing, and chromatin condensation. The role of the cell surface cytokine receptor, Fas (Apo-1, CD95), in apoptosis has been well characterized. The tumor necrosis factor (TNF) receptor type I (TNFRI, CD120a) and TNF-related apoptosis-inducing ligand receptor 2 (TRAILR2, DR5) can trigger cell death, as well as various other responses. Fas, TNFRI, and TRAILR2 affect a common target in the cell death pathway, FADD (*Fas-A*ssociated via *D*eath *D*omain or *FAS-A*ssociating protein with *D*eath *D*omain, also known as MORT1). FADD is an adaptor protein that specifically binds to Fas and other death domain-containing proteins via their homologous death domains. FADD also contains an N-terminal *D*eath *E*ffector *D*omain (DED) that interacts with the DED-containing procaspases-8 and -10 to initiate apoptosis. The role of FADD serine 194 (S194) phosphorylation in the regulation of apoptosis and cell cycle progression is under investigation.

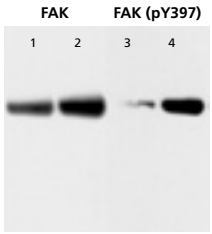


Western blot analysis of FADD (pS194) in human epidermis.
Lysates from control (left panel) and calyculin A-plus-okadaic acid-treated (right panel) human A-431 epidermoid carcinoma were probed with purified mouse anti-FADD (pS194) monoclonal antibody at concentrations of 2.0, 1.0, and 0.5 µg/ml (lanes 1, 2, and 3, respectively). FADD (pS194) is identified as a band of 27 kDa in the treated cells.

FAK

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
611806	FAK (pY397)	18	Ms IgG1	Purified	50 µg	￥31,000
611807	FAK (pY397)	18	Ms IgG1	Purified	150 µg	￥53,000
611722	FAK (pY397)	14	Ms IgG1	Purified	50 µg	￥31,000
611723	FAK (pY397)	14	Ms IgG1	Purified	150 µg	￥53,000

Focal **A**dhesion **K**inase (FAK) is a cytoplasmic tyrosine kinase that colocalizes with integrins in focal adhesions. This cellular localization is directed by a 125 amino acid sequence at the C-terminus called the "Focal Adhesion Targeting" sequence (FAT). The binding of extracellular matrix ligands to integrins triggers autophosphorylation at Tyr-397, and activation of FAK through phosphorylation of Tyr residues (Tyr-576 and Tyr577) in the kinase domain activation loop. For example, cell adhesion to a fibronectin substratum involves concurrent activation of Src and phosphorylation of the FAK activation loop. In addition, phosphorylation of other Tyr residues (Tyr-925, and Tyr-861) creates binding sites for SH2 domains of intracellular signaling molecules such as Src, PI3 kinase, and Grb2. FAK's ability to bind numerous structural and signaling proteins via a variety of interactions is important for FAK activation level, and for FAK interaction with a variety of substrates localized to sites of cell adhesion. Thus, FAK activity is regulated by a complex set of phosphorylation sites, and this phospho-regulation could be important for cell motility, cell growth, cytoskeletal organization, and adhesion-dependent cell survival.

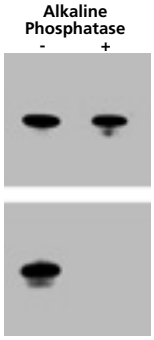


Western blot analysis using anti-FAK (pY397) (611722) and anti-FAK (610087) in human fibroblast cells either untreated (lanes 1 and 3) or treated with pervanadate (lanes 2 and 4).

Fyn

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612668	Fyn (pY528)/c-Src (pY530)	31	Ms IgG2b	Purified	50μg	￥31,000
612669	Fyn (pY528)/c-Src (pY530)	31	Ms IgG2b	Purified	150μg	￥53,000

p59fyn is a member of the Src family of protein tyrosine kinases. Two isoforms of the protein have been identified, named FynB and Fyn T (Cooke and Perlmutter, 1989). Fyn B has been shown to be localized to the brain, whereas Fyn T associates with both B and T cells. Stimulation of the T cell antigen receptor (TcR) results in protein tyrosine phosphorylation via non-receptor tyrosine kinases. p59fyn kinase (Fyn T) associates with the TcR. Ligation of the TcR activates the protein kinase activity of p59fyn in various human T cells. Fyn interacts with the CD3-zeta chains through its N-terminal region. In turn, fyn binds other proteins through its SH2 and SH3 domains. These proteins (p82 and p116) may serve as substrates and/or mediators of fyn activity. p59fyn kinase is tyrosine phosphorylated at two sites, Tyr-417 (autophosphorylation site), and Tyr-528 (negative regulatory site) (Grant, S.G., et al. 1992).

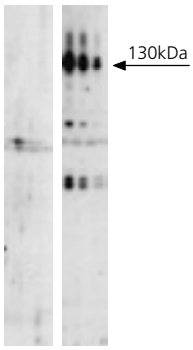


A431 cells were treated with 100ng/ml EGF for 5 min and then either left untreated (-) or treated (+) with 50μg/ml alkaline phosphatase for 30 min at 37℃. The top panel was probed with Src and the bottom was probed with Fyn (pY528)/c-Src (pY530).

gp130

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558096	gp130 (pS782)	6a/gp130 (pS782)	Ms IgG2b, κ	Purified	0.1 mg	￥68,000

Leukemia Inhibitory Factor (LIF) signals through a heterodimeric receptor complex consisting of LIFR and gp130. LIF-stimulated dimerization of LIFR and gp130 results in signal transduction through the Jak/Tyk family of nonreceptor protein tyrosine kinases. Serine 782 is the major site for gp130 phosphorylation and this phosphorylation is involved in the regulation of the cell surface expression of the receptor polypeptide.

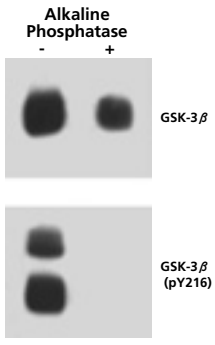


Western blot analysis of gp130 (pS782). NIH3T3 cells were either left untreated (A) or treated with Calyculin/Okadaic acid (B). Blots were probed with anti-gp130 (pS782) antibody at concentrations of 0.0078, 0.0039, and 0.0019μg/ml. gp130 (pS782) is identified as a band of ～130kDa.

GSK-3β

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612312	GSK-3β (pY216)	13a	Ms IgG1	Purified	50μg	￥31,000
612313	GSK-3β (pY216)	13a	Ms IgG1	Purified	150μg	￥53,000

Glycogen **S**ynthase **K**inase-3β (GSK-3β) is a serine/threonine kinase that affects glycogen metabolism by phosphorylating and down-regulating the activity of muscle glycogen synthase. GSK-3β is identical to the Tau Protein Kinase I (TPK I) that plays a role in the formation of the histopathological brain lesions of Alzheimer's disease (AD). Phosphorylation of the cytoskeletal protein, tau, by GSK-3β converts these proteins into paired helical filaments (PHF) which are found in the neurofibrillary tangles and degenerative neurites of AD patients. Regulation of GSK-3β activity through both serine and tyrosine phosphorylation is a critical determinant of cell death or survival. Factors that promote cell survival, such as growth factors, activate Akt which, in turn, phosphorylates GSK-3β at Ser-9, leading to inactivation of its kinase activity. On the contrary, events that promote cell death, such as growth factor removal, cause increases in phosphorylation within the catalytic domain at Tyr-216 and stimulate kinase activity. Thus, GSK-3β is a tightly regulated death promoting kinase that regulates the activty of various proteins, including cytokeletal and enzymatic proteins.



RSV-3T3 lysate was either left untreated (-) or treated (+) with 50μg/ml alkaline phosphatase for 30 minutes at 37℃. The top panel was probed with GSK-3β (610201) and the bottom was probed with GSK-3β (pY216) (612312).

Integrin β 3

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612528	Integrin β 3 (pY759)	7a	Ms IgG1	Purified	50 μg	￥31,000
612529	Integrin β 3 (pY759)	7a	Ms IgG1	Purified	150 μg	￥53,000

Integrins are heterodimeric transmembrane receptors that mediate cell-cell or cell-matrix adhesion. They contain noncovalently associated α and β subunits that consist of a large extracellular region (the ligand-binding domain), a short transmembrane region, and a cytoplasmic domain of varying length. In mammals, at least 17 α subunits and 8 β subunits have been identified and these proteins can heterodimerize to form at least 22 different receptors. Although there is a high degree of redundancy, each integrin has a specific biological function. For example, the β 3 subunit associates with αIIb in platelets where this glycoprotein complex acts as a fibrinogen receptor and mediates platelet aggregation. Tyrosine phosphorylation occurs at Y747 and Y759, which are located in the integrin cytoplasmic tyrosine domain (ICY) of the β 3 subunit. Phosphorylation is required for some, though not all, protein-protein interactions that are part of the signaling cascade. Two such proteins that will only bind to the phosphorylated form of the β 3 subunit are Shc and myosin. Shc, and likely myosin as well, is involved in platelet signaling through β 3. Thus, integrin β 3 is an important component of platelet signaling and tyrosine phosphorylation plays a key role in the process.
Species reactivity is based on 100% homology between the immunogen sequence and each species.

IRS-1

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558378	IRS-1 (pY896)	K9-211	Ms IgG2a, κ	Purified	0.1 mg	￥68,000

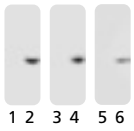
The IRS (*I*nsulin *R*eceptor *S*ubstrate) proteins IRS-1, IRS-2, IRS-3, and IRS-4 are major substrates of the insulin receptor and the insulin-like growth factor-1 (IGF-1) receptor tyrosine kinases. IRS proteins contain an N-terminal pleckstrin homology (PH) domain, a phosphotyrosine-binding (PTB) domain, and multiple tyrosine phosphorylation sites in the C-terminus. The IRS-1 protein is widely expressed and, along with IRS-2, mediates somatic growth and carbohydrate metabolic responses to insulin. Following insulin receptor ligation, IRS-1 binds to the juxtamembrane region of the receptor via the PH and PTB domains and is tyrosine phosphorylated, which facilitates its interaction with SH2 domain-containing signaling proteins. Specifically, the phosphorylated tyrosine 896 (Y896) of human IRS-1 is a major binding site for the GRB2 (*G*rowth-factor *R*eceptor-*B*ound protein *2*) adaptor protein. Orthologous phosphotyrosine sites occur at residues 895 and 891 in rat and mouse IRS-1, respectively. After IRS-1 activation, negative and positive feedback regulates dephosphorylation of its tyrosine sites, which ultimately regulates the magnitude and/or duration of the downstream pleiotropic responses to insulin and IGF-1.

Western blot analysis of IRS-1 (pY896) in transformed human epithelial cells. Lysates from control (left panel) and IGF-I-treated (Cat. No. 354037, right panel) 293 fetal kidney cell line were probed with purified mouse anti-IRS-1 (pY896) monoclonal antibody at concentrations of 0.064, 0.032, and 0.016 μg/ml (Lanes 1, 2, and 3, respectively). IRS-1 (pY896) is identified as a band of 160-185 kDa in the treated cells.

IκBα

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
551818	IκBα (pS32/pS36)	39A1431	Ms IgG1	Purified	50 μg	￥38,000

NF-κB is a transcription factor which is a member of the mammalian NF-κB /Rel family of proteins (*reviewed in 1*). Members of this family are involved in the regulation of cell proliferation, immune function, as well as development NF-κB is normally found in the cytoplasm and remains in an inactive state by its association with an inhibitory protein, IκB. Stimulation of NF-κB by a variety of inducers causes the degradation of IκBs and translocation of NF-κB to the nucleus and activation on of the target gene. IκBα is a member of the IκB family of proteins including IκBβ, IκBγ, IκBε, Bcl-3, and the precursors of NF-κB1 (p105), and NF-κB2 (p100). IκBα is the best characterized member of the family and has been shown to contain three different structural domains: an N-terminal region, an amino acid internal region containing ankyrin repeats, and a C-terminal region containing a PEST domain. In resting cells, IκBα binds to and maintains NF-κB in the cytoplasm by blocking the nuclear localization sequences of NF-κB. Inresponse to an extracelular signal, IκBα is phosphorylated and subsequently degraded via the ubiquination-proteasome pathway, allowing NF-κB to translocate to the nucleus. Once in the nucleus, NF-κB can induce the transcription of IκBα thereby renewing the cycle so that IκBα can form a complex with NF-κB and maintain it in its cytoplasmic location. IκBα -/- mice have been shown to die soon after birth and show an increased level NF-κB activity. Furthermore, in Hodgkin's lymphoma (HL) a high constitutive level of NF-κB has been reported in samples in which clonal deleterious mutations were detected in the IκBα gene. The exact role that IκBα plays in the pathogenic process which leads to HL remains to be elucidated. IκBα migrates at ~42 kDa in SDS/PAGE, while the deduced molecular weight based upon its cDNA sequence is ~36 kDa (SWISSPROT Accession number P25963).

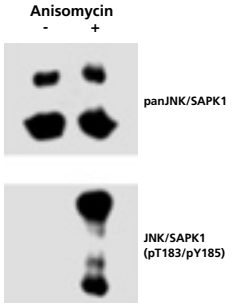


Western blot analysis using anti-IκBα (pS32/pS36) (551818) in Jurkat T cells either untreated (lanes 1, 3, and 5) or treated with TNF (lanes 2, 4, and 6).

JNK

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612540	JNK/SAPK (pT183/pY185)	41	Ms IgG1	Purified	50 μg	￥31,000
612541	JNK/SAPK (pT183/pY185)	41	Ms IgG1	Purified	150 μg	￥53,000

The Ras signaling pathway links the signals from growth factor receptors with the activation of the MAPK kinase cascade of phosphorylation leading to cell growth and differentiation. External stimuli, like endotoxins, UV irradiation, heat, and hyperosmolarity, induce an array of cellular responses that culminate with gene expression, ultimately dictating an adaptation to the new environment. Small GTPases of the Rho family, including cdc42,Rac1, and Rho, transmit the stress signals that initiate the signal cascade.JNK is a c-Jun kinase that was also identified as SAPK1 and MAPKp49. JNK/SAPK, along with p38 and ERK5/BMK1, comprise three classes of stress-activated MAPK groups. Complete activation of JNK/SAPK requires the phosphorylation of both Thr183 and Tyr185, which are located in a Thr-X-Tyr motif. The activation of these residues is believed to be carried out by MKK4 and MKK7. Active JNK/SAPK phosphorylates other kinases and multiple transcription factors that induce expression of genes, such as proinflammatory cytokines.

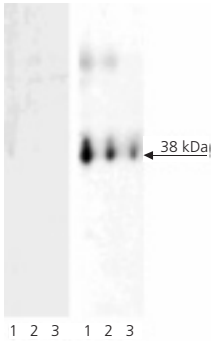


HeLa cells were either left untreated (-) or treated (+) with 25 μg/ml anisomycin for 15 min at 37℃.The top panel was probed with panJNK / SAPK1 (610627) and the bottom was probed with JNK/SAPK1 (pT183/pY185).

LAT

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558392	LAT (pY171)	I58-1169	Ms IgG1, κ	Purified	0.1 mg	￥68,000
558363	LAT (pY226)	J96-1238.58.93	Ms IgG1, κ	Purified	0.1 mg	￥68,000

Engagement of the T cell receptor (TCR) induces signal transduction pathways that enhance gene transcription and cellular proliferation and differentiation. TCR ligation results in the recruitment and activation of multiple protein tyrosine kinases (PTKs), including lck, fyn, and ZAP70. Adaptor proteins, such as Grb2 and SLP-76, relay the signal to downstream effector molecules. LAT (linker for activation of T cells) is a substrate of the activated ZAP70 and functions to bridge the activated TCR and its associated PTKs with tyrosine kinase substrates. LAT is expressed as 36- and 38-kDa forms that result from post-translational modification, and as a 42-kDa form that results from alternative splicing. LAT is an integral membrane protein that is phosphorylated at five tyrosine sites upon TCR ligation. Following phosphorylation, LAT binds a number of important signaling molecules, including Grb2, Vav, PLC γ1, and the p85 subunit of PI3K. Multiple studies have shown that functional LAT is required for T lymphocyte activation and thymocyte development.

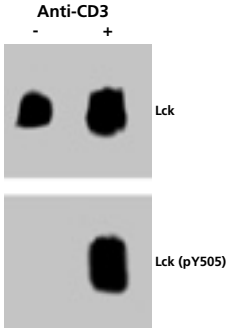


Western blot analysis of LAT (pY171) on human T lymphocytes.
Lysates from control (left panel) and anti-CD3 plus anti-CD28-activated (Cat. No. 555329 and 555725,
respectively; right panel) Jurkat T-cell leukemia were probed with purified mouse anti-LAT (pY171) at concentrations of 2.0, 1.0, and 0.5 μg/ml (Lanes 1, 2, and 3, respectively). LAT (pY171) is identified as a band of 38 kDa in the treated cells.

Lck

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612390	Lck (pY505)	4	Ms IgG1	Purified	50 μg	￥31,000
612391	Lck (pY505)	4	Ms IgG1	Purified	150 μg	￥53,000

Protein tyrosine phosphorylation is an essential step in the signal transduction cascade leading to T cell antigen receptor (TCR) activation. Lck is a protein kinase and a member of the src family of cytoplasmic protein-tyrosine kinases (PTKs). Members of this family have several common features: 1) unique N-terminal domains, 2) attachment to cellular membranes through a myristylated N-terminus, and 3) homologous SH2, SH3, and catalytic domains. The unique N-terminal domain of Lck interacts with the cytoplasmic tails of the CD4 and CD8 cell surface glycoproteins. CD4 and CD8 bind to surface MHC class II and class I molecules, respectively. Lck is regulated by both kinases and phosphatases. Autophosphorylation at Y394 leads to conformational changes in the catalytic domain, which induces kinase activity. Repression of Lck occurs via phosphorylation at Y505, located near the carboxy-terminus. Phosphorylation of this tyrosine site is mediated by the Csk family of PTKs. Upon phosphorylation at this site, Lck associates with the SH2 domain in the amino-terminus, thus keeping the protein biologically inactive. Lck activity and regulation is critical for activation and development of T cells.

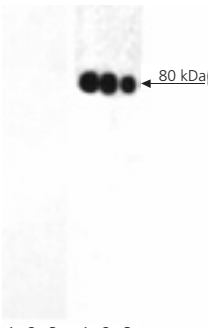


Jurkat cells were either untreated (-) or treated (+) with Anti-CD3 for 15 minutes at 37℃. The top panel was probed with Lck (610097) and the bottom panel was probed with Lck (pY505) (612390).

MARCKS

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558380	MARCKS (pS152/pS156)	I84-1233	Ms IgG1, κ	Purified	0.1 mg	￥68,000

*M*yristoylated *A*lanine-*R*ich *C*-Kinase *S*ubstrate (MARCKS) is a major substrate of protein kinase C (PKC) and implicated in several cellular processes involving regulated rearrangement of the actin cytoskeleton. MARCKS has been shown to bind calmodulin in a calcium-dependent manner that is regulated by phosphorylation. In mouse, MARCKS' phosphorylation on serines 152 and 156 (S152 and S156) has been used as an indicator of PKC activity. MARCKS has also been shown to bind and cross-link actin filaments, a process disrupted by its phosphorylation or calcium-calmodulin. The acidic protein MARCKS is composed of an N-terminal myristoylated sequence, a basic effector domain containing the PKC phosphorylation sites and the calmodulin- and actin-binding sites, and an intervening domain of unknown function referred to as the MH2 (MARCKS homology 2) domain.

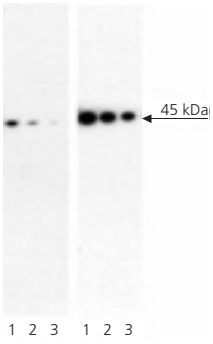


Western blot analysis of MARCKS (pS152 / pS156) in mouse embryonic fibroblasts.
Lysates from NIH/3T3 cell line were probed with purified mouse anti-MARCKS (pS152/pS156) monoclonal antibody at concentrations of 0.03125, 0.0156, and 0.0078μg/ml (Lanes 1, 2, and 3, respectively) with (left panel) or without (right panel) lambda protein phosphatase treatment. MARCKS (pS152/pS156) is identified as a band of 80 kDa in the untreated lysate.

MEK1

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558375	MEK1 (pS298)	J114-64	Ms IgG1, κ	Purified	0.1 mg	￥68,000

MEK (*M*ap/*E*rk *K*inase) 1 and 2 are serine/threonine kinases, also known as MAP kinase kinases (MAP2K1 and 2, MAPKK1 and 2, or MKK1 and 2). They activate the MAP (*M*itogen-*A*ctivated *P*rotein) kinases, also known as ERKs (*E*xtracellular signal *R*egulated *K*inases), which are critical kinases in multiple signal transduction pathways that regulate cell growth and differentiation. Activation of MEK 1 and 2 is dependent upon phosphorylation of serines 218 and/or 222 by activated MAP kinase kinase kinases (MAP3Ks), such as the Raf isoforms. Hormones, growth and differentiating factors, or tumor promoters induce Raf activation via activation of Ras proteins. Alternatively, cellular adhesion can lead to phosphorylation of MEK1 at serine 298 (S298), mediated by p21-activated kinase (PAK). The S298-phosphorylated MEK1 has an enhanced capacity to interact with Raf, resulting in MEK1 activation.



Western blot analysis of MEK1 (pS298) in mouse embryonic fibroblasts.
Lysates from detached (trypsinized, left panel) and attached (80-90% confluent, right panel) NIH/3T3 cell line were probed with purified mouse anti-MEK1 (pS298) monoclonal antibody at concentrations of 0.015, 0.008, and 0.004μg/ml (Lanes 1, 2, and 3, respectively). MEK1 (pS298) is identified as a band of 45 kDa in the treated cells.

NF-H

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
551348	NF-H Phospho-Specific	RNF404	Ms IgG2a	Purified	50μg	￥38,000
551958	NF-H Phospho-Specific	RNF405	Ms IgM	Purified	50μg	￥38,000

Intermediate filaments (IF) are a subset of cytoskeletal proteins which function to give overall structural integrity to the plasma membrane as well as organize cells into specific tissues. IF proteins can be divided into six major types based upon the similarity in sequence.Neurofilaments (NF) are classified as Type IV intermediate filaments and are composed of three polypeptides, designated NF-L (~68 kDa), NFM (~160 kDa), and NF-H (~200 kDa) which differ in molecular weight The distribution of these neurofilaments is mostly limited to the central and peripheral nervous system and restricted to neurons. NF proteins function to provide radial growth of the neuron. Most neurons are composed of all three NF proteins, although the role of each individual NF polypeptide has not been fully elucidated. Both phosphorylated and non-phosphorylated forms of NFs are found in the brain; phosphorylation status is dependent upon the stage of development and region of the brain. The NF-H protein is abundantly expressed in the spinal cord, cerebellum, pons, and medulla; all regions giving rise to long-axon neurons. In an effort to further define the role of NF-H proteins, NF-H-/- mice were constructed with a targeted deletion of the NF-H gene. Studies demonstrated that large myelinated axons from NF-H-/- mice showed a significant decrease in conduction velocity as well as outward rectification, which may play a role in the etiology of neurodegenerative processes.

Western blot analysis of NF-H.
Lysate from rat brain was either untreated (lanes 1-3) or treated with alkaline phosphatase (50μg/ml at 37℃ for 30 min, lane 4). The lysate was then probed with anti-NF-H (clone RNF404, component 51-8097KC) at concentrations of 0.125 (lane 1), 0.063 (lanes 2, 4), and 0.031μg/ml (lane 3). NF-H is identified as a band of ~200 kDa. Alkaline phosphatase treatment caused a significant reduction of the NF-H band.

NF-M

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
551957	NF-M Phospho-Specific	RNF403	Ms IgG1	Purified	50μg	￥38,000
551962	NF-M Phospho-Specific	RNF406	Ms IgG1	Purified	50μg	￥38,000

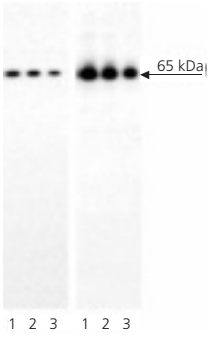
Intermediate filaments (IF) are a subset of cytoskeletal proteins which function to give overall structural integrity to the plasma membrane as well as organize cells into specific tissues. IF proteins can be divided into six major types based upon the similarity in sequence. Neurofilaments (NF) are classified as Type IV intermediate filaments and are composed of three polypeptides, designated NF-L (~68 kDa), NF-M (~160 kDa), and NF-H (~200 kDa) which differ in molecular weight.1 The distribution of these neurofilaments is mostly limited to the central and peripheral nervous systems and restricted to neurons. NF proteins functio nto provide radial growth of the neuron. Most neurons are composed of all three NF proteins, although the role of each individual NF polypeptide has not been fully elucidated. Both phosphorylated and non-phosphorylated forms of NF's are found in the brain; phosphorylation status is dependent upon the stage of development and region of the brain. The exact role for the phosphorylation of neurofilaments remains to be elucidated, but aberrant neurofilament phosphorylation occurs in a number of neurodegenerative diseases. For example, in a rat model for spontaneous type I diabetes, the NF-M neurofilament in the ural nerve of BB rats showed a 2.5-fold increase in phosphorylation. Phosphorylation may play a role in regulating the incorporation of slow transported neurofilament proteins into the stable cytoskeletal network of the axon, thereby in some way helping to regulate the diameter of the axon.

Western blot analysis of NF-M.
Lysate from rat whole brain was either untreated (lanes 1-3) or treated with alkaline phosphatase (50μg/ml at 37℃ for 30 min, lane 4). The lysate was then probed with anti-neurofilament (clone RNF403, Cat. No. 8122KC) at concentrations of 1.0 (lane 1), 0.5 (lanes 2, 4), and 0.25μg/ml (lane 3). RNF403 is identified as a band of 160 kDa. Alkaline phosphatase treatment caused a significant reduction of the NF-M band.

NF-κB p65

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558393	NF-κB p65 (pS529)	K10-895.12.50	Ms IgG2b, κ	Purified	0.1 mg	￥68,000
558377	NF-κB p65 (pS536)	J144-460	Ms IgG1, κ	Purified	0.1 mg	￥68,000

Nuclear factor κB (NF-κB) is a ubiquitously expressed transcription factor that regulates the expression of 200-300 genes. It is crucial for basic cellular responses to stress and pathogens, such as proliferation, survival, development, and apoptosis. The most studied NF-κB complex consists of the p50 (also known as NF-κB1) and p65 (also known as REL-A) subunits, both containing a 300-amino acid region with homology to the Rel proto-oncogene product (RH domain). The RH domain contains motifs for dimerization, nuclear localization, and binding to specific DNA sequences. In addition to the RH domain, the p65 subunit contains the transactivation domain, which is responsible for the interaction with the inhibitor IκB and which contains phosphorylation sites. In most cell types, the p50/p65 heterodimer is located within the cytoplasm complexed to IκB. This complex prevents nuclear translocation and activity of NF-κB. In response to stimuli such as cytokines, LPS, DNA damage, and viral infections, IκB is phosphorylated at critical residues. This phosphorylation induces dissociation of the IκB/NF-κB complex, allowing the free heterodimeric NF-κB to translocate to the nucleus. Furthermore, optimal activation of NF-κB requires phosphorylation in the transactivation domain of p65. In the nucleus, activated dimers bind to the κB sites within promoters and enhancers and function as transcriptional activators.

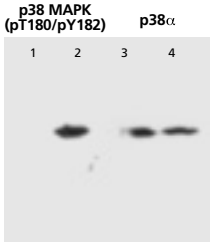


Western blot analysis of NF-κB p65 (pS529) in transformed human epithelioid carcinoma.
Lysates from control (left panel) and TNF-treated (Cat. No. 554618, right panel) HeLa cell line were probed with purified mouse anti-NF-κB p65 (pS529) monoclonal antibody at concentrations of 0.0125, 0.00625 and 0.00312μg/ml (Lanes 1, 2, and 3, respectively). NF-κB p65 (pS529) is identified as a band of 65 kDa in the treated cells.

p38 MAPK

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612552	p38 MAPK (pT180/pY182)	36	Ms IgG1	HRPO	50μg	¥35,000
612553	p38 MAPK (pT180/pY182)	36	Ms IgG1	HRPO	150μg	¥66,000
612288	p38 MAPK (pT180/pY182)	36	Ms IgG1	Purified	50μg	¥31,000
612289	p38 MAPK (pT180/pY182)	36	Ms IgG1	Purified	150μg	¥53,000
612280	p38 MAPK (pT180/pY182)	30	Ms IgG1	Purified	50μg	¥31,000
612281	p38 MAPK (pT180/pY182)	30	Ms IgG1	Purified	150μg	¥53,000

Activation of the immune and inflammatory responses often involves the recognition of bacterial endotoxin (lipopolysaccharide or LPS). Binding of LPS by monocytic cells results in the production and release of proinflammatory cytokines, such as IL-1 and TNF-α. LPS-induced signaling cascades involve members of the Ser/Thr protein kinase family known as the mitogen activated protein kinases (MAPKs). MAPK signal transduction pathways mediate the effects of various extracellular stimuli on biological processes such as proliferation, differentiation, and death. The p38 MAP kinases include p38α, β, γ, and δ. These ser/thr kinases are activated by dual phosphorylation on Thr and Tyr within the motif Thr-Gly-Tyr located in kinase subdomain VIII. Activation of p38 MAPK is mediated specifically by the *M*AP *k*inase *k*inases, MKK3, MKK4, and MKK6. This leads to the activation of multiple transcription factors (NF-κB, ATF-2, Elk-1, and CHOP) that induce expression of many different genes, including proinflammatory cytokine genes. Thus, p38 MAPKs are central kinases in muliple signal transduction pathways.

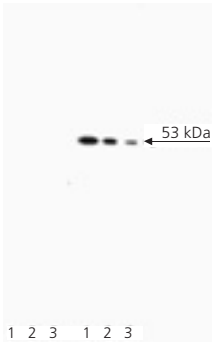


Western blot analysis using anti-p38α (612168) and anti-p38 MAPK (pT180 / pY182) (612288) in HeLa cells either untreated (lanes 1 and 3) or treated with anisomycin (lanes 2 and 4).

p53

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558369	p53 (pS37)	J159-641.15.4	Ms IgG1, κ	Purified	0.1 mg	¥68,000

The p53 protein is critical to regulation of normal cell growth and is a suppressor of tumor cell proliferation. Inactivation of p53 by a number of mechanisms, such as missense mutations or interaction with oncogenic viral or cellular proteins, can result in tumor progression. Mutations and/or allelic loss of the p53 gene are associated with a wide variety of human tumors. Known to have a role in transcriptional regulation, p53 suppresses various promoters containing TATA elements in an apparently sequence-independent fashion. p53 also binds to DNA in a sequence-specific manner via recognition of a 20-bp consensus-binding site. This interaction stimulates the expression of genes downstream of the p53 binding site. A number of genes that contain p53-binding sites have been identified, including MDM2, GADD45, and muscle creatine kinase, which primarily prevent cell proliferation. MDM2 mediates feedback inhibition of p53, which is prevented by phosphorylations of p53 amino-terminal serines and threonines. Upon exposure to DNA damage-inducing agents, ATR and DNA-PK (ataxia telangiectasia- and Rad3-related and DNA-dependent protein kinases, respectively) phosphorylate p53 at serine 37 (S37). This phosphorylation disrupts the binding of MDM2 to p53, allowing the cell's stress responses to proceed.

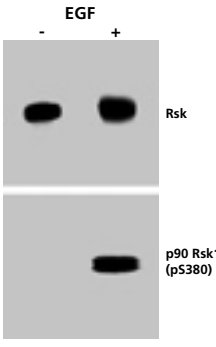


Western blot analysis of p53 (pS37) in human epidermis.
Lysates from control (left panel) and ultraviolet light-treated (right panel) human A-431 epidermoid carcinoma were probed with purified mouse anti-p53 (pS37) monoclonal antibody at concentrations of 1.0, 0.5, and 0.25μg/ml (lanes 1, 2, and 3, respectively). p53 (pS37) is identified as a band of 53 kDa in the treated cells.

p90 RSK1

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612692	p90 RSK1 (pS380)	20a	Ms IgG1	Purified	50μg	¥31,000
612693	p90 RSK1 (pS380)	20a	Ms IgG1	Purified	150μg	¥53,000

The p90 ^{rsk} (Rsk) and p70 ^{s6k} kinases were first identified based on their ability to phosphorylate the 40S ribosomal protein S6 *in vitro*. Both of these enzymes are differentially regulated by serine/threonine phosphorylation in response to mitogenic stimulation. ERK1 and ERK2 have been shown to regulate Rsk activity. Once activated by this phosphorylation, a significant amount of Rsk can be found in the nucleus, suggesting that it has a role in nuclear signaling events. The regulation of nuclear Rsk and ERK activities by growth factors is coordinated with the induction of several early response genes. Rsk has also been shown to be activated by ionizing radiation, presumably through an activated MAP kinase. Studies in *Xenopus* oocytes and mouse NIH/3T3 cells indicate that inactive Rsk and ERK2 exist in a complex of approximately 110kDa. Upon phosphorylation of Rsk and ERK2, the heterodimer dissociates and at least a portion of these activated kinases translocate to the nucleus.

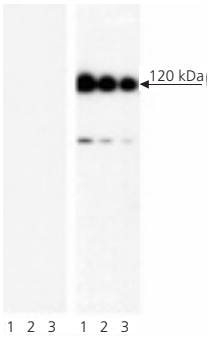


A431 cells were either left untreated (-) or treated (+) with 100ng/ml EGF for 5 minutes at 37oC. The top panel was probed with Rsk (cat.#610225) and the bottom was probed with p90 Rsk1 (pS380).

p120 Catenin

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558383	p120 Catenin (pS268)	9a.390	Ms IgG2b, κ	Purified	0.1 mg	¥68,000
558396	p120 Catenin (pS288)	17/catenin	Ms IgG2a	Purified	0.1 mg	¥68,000
558203	p120 Catenin (pT310)	22	Ms IgG1, κ	Purified	0.1 mg	¥68,000
558398	p120 Catenin (pT916)	1/Catenin	Ms IgG2b, κ	Purified	0.1 mg	¥68,000
612534	P120 Catenin (pY96)	25a	Ms IgG1	Purified	50 μg	¥31,000
612535	P120 Catenin (pY96)	25a	Ms IgG1	Purified	150 μg	¥53,000
612536	P120 Catenin (pY228)	21a	Ms IgG1	Purified	50 μg	¥31,000
612537	P120 Catenin (pY228)	21a	Ms IgG1	Purified	150 μg	¥53,000
612538	P120 Catenin (pY280)	18	Ms IgG1	Purified	50 μg	¥31,000
612539	P120 Catenin (pY280)	18	Ms IgG1	Purified	150 μg	¥53,000
612690	p120 Catenin (pY291)	15A	Ms IgG1	Purified	50 μg	¥31,000
612691	p120 Catenin (pY291)	15A	Ms IgG1	Purified	150 μg	¥53,000

The membrane associated protein pp120 Src substrate (p120 catenin, p120cas) was identified as a tyrosine kinase substrate that is phosphorylated in Src-transformed cells. It shares structural similarity with the Drosophila Armadillo protein and the vertebrate β-catenin and γ-catenin proteins in its 42-amino acid Arm domain. p120 catenin is localized to the E-Cadherin/catenin cell adhesion complex. Like β- and γ-catenin, p120 catenin directly associates with the cytoplasmic C-terminus of E-Cadherin via its Arm domain. It exists as four isoforms that range in size from 90 to 115 kDa. Expression of these isoforms is heterogeneous in human carcinomas, suggesting that altered expression contributes to malignancy. Phosphorylation of multiple serine (S252, S268, S288, and S873), and threonine (T310 and T910) residues in p120 catenin may regulate its activity. The S873 residue is phosphorylated after PKC activation, while the S268 site is dephosphorylated after PKC activation. The latter residue is phosphorylated *in vitro* by p160 Rock. S252 and T310 residues are phosphorylated in vitro by GSK3b. Thus, p120 catenin function may be regulated in a complex manner through both serine and threonine phosphorylation.



Western blot analysis of p120 catenin (pS268) in human epidermis.
Lysates from human A-431 epidermoid carcinoma were probed with purified mouse anti-p120 catenin (pS268) monoclonal antibody at concentrations of 1.0, 0.5, and 0.25 μg/ml (lanes 1, 2, and 3, respectively) with (left panel) or without (right panel) lambda protein phosphatase treatment. p120 catenin (pS268) is identified as a band of 120 kDa in the untreated lysate.

p130^{Cas}

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558401	p130 ^{Cas} (pY249)	J169-757.12.2	Ms IgG2b, κ	Purified	0.1 mg	¥68,000

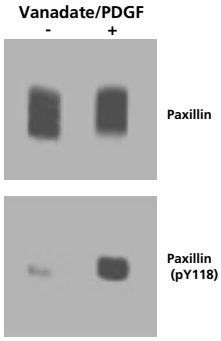
p47v-crk (v-Crk) is the product of a transforming gene, v-crk, that was isolated from avian sarcoma viruses. The v-Crk protein is a fusion product of viral Gag protein and a part of cellular Crk that includes SH2 and SH3 domains. v-Crk-induced transformation increases tyrosine phosphorylation of several cellular proteins, including p130Cas (*C*RK-*a*ssociated *s*ubstrate). The p130Cas is tightly associated with v-Crk via the SH2 domain of v-Crk. Tyrosine phosphorylation of p130Cas occurs in conjunction with cellular transformation in cells that express v-Src or v-Crk. This phosphorylation leads to a change in p130Cas localization from the cytoplasm to the cell membrane and, possibly, to the nucleus. Since p130Cas also associates with v-Src, it may be a v-Src substrate. Several phosphorylation sites have been described in p130Cas upon Fibroblast Growth Factor stimulation, and phosphorylated tyrosine (Y249) might function as a binding site for the Crk-adaptor molecule.

Western blot analysis of p130^{Cas} (pY249) in human Burkitt's lymphoma.
Lysates from control (left panel) and hydrogen peroxide-activated (right panel) Ramos cells were probed with purified mouse anti-p130Cas (pY249) monoclonal antibody) at concentrations of 0.125, 0.0625, and 0.0312 μg/ml (Lanes 1, 2, and 3, respectively). p130Cas (pY249) is identified as a band of 130 kDa in the treated cells.

Paxillin

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
611724	Paxillin (pY118)	30	Ms IgG1	Purified	50μg	¥31,000
611725	Paxillin (pY118)	30	Ms IgG1	Purified	150μg	¥53,000

A number of cytoskeletal proteins are tyrosine phosphorylated in Rous sarcoma virus-transformed chick embryo fibroblasts. One of these is the 68kDa paxillin protein. Paxillin is a cytoskeletal component that localizes to the focal adhesions at the ends of actin stress fibers. It is also present in the focal adhesions of Madin-Darby canine kidney epithelial cells, but is absent from the cell adherens junctions of these cells. Paxillin purified from chicken gizzard migrates as a diffuse band on SDS-PAGE with molecular weight of 65-70kDa. It binds to the rod domain of vinculin, another focal adhesion protein. Paxillin is a substrate for several tyrosine kinases such as src, FAK, and p120BRC/ABL, and the phosphorylation of paxillin on Y118 is affected by conditions that change cell-cell adhesion. This is consisent with the possibility that paxillin is involved in the regulation of cell morphology. Additionally, because of its SH3ξbinding domain, paxillin associates tightly with FAK and Crk in an extracellular matrix-independent manner. Although paxillin was initially detected in fibroblasts, its phosphorylation may also be important during neurite extension.



NIH 3T3 cells were either left untreated (-) or treated (+) with 1mM sodium vanadate for 10 minutes at RT, then 5ng/ml PDGF for 30 minutes at 37C. The top panel was probed with Paxillin (cat.#610051) and the bottom was probed with Paxillin (pY118) (cat.#611724).

PDGFRβ

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558321	PDGFRβ (pY1009)	J25-602	Ms IgG2b, κ	Purified	0.1 mg	¥68,000
558358	PDGFRβ (pY1021)	J105-412	Ms IgG1, κ	Purified	0.1 mg	¥68,000
558361	PDGFRβ (pY771)	J23-618	Ms IgG1, κ	Purified	0.1 mg	¥68,000
558360	PDGFRβ (pY857)	J24-425	Ms IgG1, κ	Purified	0.1 mg	¥68,000

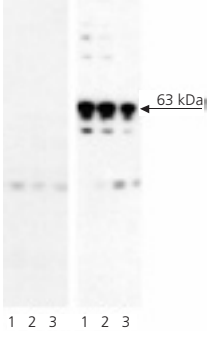
Platelet-derived growth factor (PDGF) is a potent mitogen for cells of mesenchymal origin and exerts its effects by binding to the PDGF receptor (PDGFR), a transmembrane protein tyrosine kinase. PDGFR is composed of PDGFRα (CD140a) and/or PDGFRβ (CD140b) polypeptides. Both PDGF and PDGFR consist of subunits that form homo- or heterodimers with varying specificities: PDGF-AA binds only to αα PDGFR, PDGF-AB binds to both αα and αβ PDGFR, and PDGF-BB binds to all three PDGFRs. Ligand binding induces dimerization and activation of the receptor. Upon activation, CD140b is phosphorylated at multiple tyrosine sites and, in turn, an intracellular phosphorylation cascade is initiated. PDGFR localizes primarily to membrane invaginations termed caveolae, compartments that are enriched in several of its downstream effectors, including phosphatidylinositol 3'-kinase, Src, and phospholipase C-γ (PLC-γ).

Western blot analysis of PDGFRβ (pY1021).
Lysates from control (left panel) and PDGF-treated (right panel) NIH/3T3 mouse embryonic fibroblasts were probed with purified mouse anti-PDGFRβ (CD140b) (pY1021) at concentrations of 0.25, 0.125, and 0.06μg/ml (Lanes 1, 2, and 3, respectively). PDGFRβ (pY1021) is identified as a band of 180 kDa in the treated cells.

PDPK1

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558395	PDPK1 (pS241)	J66-653.44.22	Ms IgG1, κ	Purified	0.1 mg	¥68,000

The serine/threonine kinase 3-*P*hosphoinositide-*D*ependent *P*rotein *K*inase-1 (PDPK1, also known as PDK1) contributes to the activation of many important kinases in the insulin and IGF-1 signaling pathways. It acts downstream of phosphatidylinositol 3-kinase (PI3-kinase) to phosphorylate residues in the activation loops of many cellular kinases, including protein kinase B (PKB/Akt), PKC isoforms, p70 S6 kinase, and PDPK1 itself. The autophosphorylation of PDPK1 at serine 241 (S241) has recently been suggested to play a role in the regulation of PDPK1. It has been proposed that PDPK1 activity plays a key role in the regulation of various cellular events such as cell proliferation, differentiation, and apoptosis.

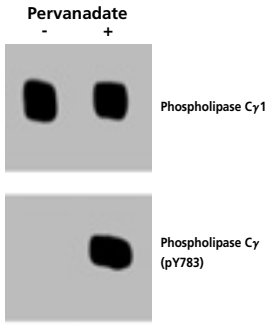


Western blot analysis of PDPK1 (pS241) in human T lymphocytes.
Lysates from calyculin A- plus okadaic acid - treated Jurkat cells were probed with purified mouse anti-PDPK1 (pS241) at concentrations of 0.5, 0.25, and 0.125μg/ml (Lanes 1, 2, and 3, respectively) with (left panel) or without (right panel) lambda protein phosphatase treatment. PDPK1 (pS241) is identified as a strong band of 63 kDa in the lysate without phosphatase treatment.

Phospholipase C γ

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612464	Phospholipase C γ (pY783)	27	Ms IgG1	Purified	50 μg	￥31,000
612465	Phospholipase C γ (pY783)	27	Ms IgG1	Purified	150 μg	￥53,000

The **P**hospho**l**ipase **C** (PLC) isozymes hydrolyze phosphatidyl inositol biphosphate to inositol triphosphate and diacylglycerol. The former causes release of calcium from the endoplasmic reticulum, while the latter is an activator of Protein Kinase C. Within the PLC family, PLC γ is the only member that contains SH2 and SH3 domains. These domains enable it to interact with receptor tyrosine kinases and become enzymatically activated via phosphorylation. It exists as two isoforms: 1) PLC γ 1, which is ubiquitously expressed, and 2) PLC γ 2, found primarily in the lymphoid system. PLC γ is essential for growth factor-induced cell motility and mitogenesis. PLC γ 1-null mice exhibit retarded embryonic growth and lethality in midgestation. In addition, PDGF stimulation leads to phosphorylation of PLC γ at Tyr 783, and activation of hydrolyzing activity. Overexpression of PLC γ is evident in several forms of cancer and it has been identified as a key mediator of PDGF-dependent cellular transformation. Thus, regulation of PLC γ activity by growth factors is involved in cell growth and transformation.

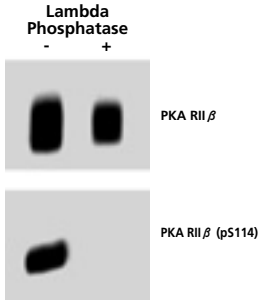


Jurkat cells were either left untreated (-) or treated (+) with1 mM pervanadate for 15 min at 37℃. The top panel was probed with Phospholipase C γ (610027) and the bottom panel was probed with Phospholipase C γ (pY783) (612464).

PKA RII β

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612550	PKA RII β (pS114)	47	Ms IgG1	Purified	50 μg	￥31,000
612551	PKA RII β (pS114)	47	Ms IgG1	Purified	150 μg	￥53,000
612572	PKA RII β (pS114)	24	Ms IgG1	Purified	50 μg	￥31,000
612573	PKA RII β (pS114)	24	Ms IgG1	Purified	150 μg	￥53,000

c**A**MP-dependent **P**rotein **K**inase (PKA) is composed of two distinct subunits: catalytic (C) and regulatory (**R**). Four regulatory subunits have been identified: RI α, RI β, RII α, and RII β. These subunits define type I and II cAMP-dependent protein kinases. Following binding of cAMP, the regulatory subunits dissociate from the catalytic subunits, rendering the enzyme active. Type I and type II holoenzymes have three potential C subunits (C α, C β, or C γ). Type II PKA can be distinguished by autophosphorylation of the R-subunits, while type I PKA binds Mg/ATP with high affinity. The cAMP-dependent autophosphorylation of the RII α and RII β subunits occurs at Ser-96 and Ser-114. These sites are found at highly conserved regions of the RII subunits. Most cells express both type I and type II PKAs. Although the R α isoforms are ubiquitously expressed, the R β isoforms are predominantly found in nervous and adipose tissues. There are indications that the deletion of the gene for PKA RII β results in lack of long-term potentiation in a select group of hippocampal cells, suggesting an important role for this protein in the neuronal function.

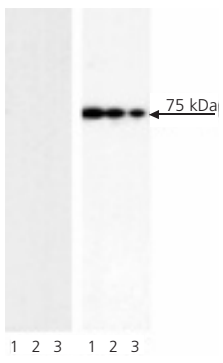


Rat Cerebrum lysate was either left untreated (-) or treated (+) with 150U/ml of lambda phosphatase for 1 hour at 37.C. The top panel was probed with PKA RII β (cat. no. 610625). The bottom panel was probed with PKA RII β (pS114).

PKC α

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558379	PKC α (pT497)	K14-984	Ms IgG1, κ	Purified	0.1 mg	￥68,000
612698	PKC α (pT638)	35	Ms IgG1	Purified	50 μg	￥31,000
612699	PKC α (pT638)	35	Ms IgG1	Purified	150 μg	￥53,000

The Protein Kinase C (PKC) family of serine/threonine protein kinases is involved in a number of processes such as growth, differentiation, and cytokine secretion. Three categories exist, conventional PKC (cPKC), novel PKC (nPKC), and atypical PKC (aPKC). All have C-terminal kinase domains, which are closely related to those of protein kinases A and B (Akt), and variable N-terminal regulatory domains that give them different modes of activation. For example, cPKC (α, β I, β II, and γ isoforms) are calcium-activated, phospholipid-dependent serine/threonine-specific enzymes that can also be activated by phorbol esters. However, nPKC (δ, ε, η, and θ isoforms) and aPKC (ζ, ι, and λ isoforms) are Ca2+-independent. aPKC are unique in that their activity is independent of diacylglycerols and phorbol esters. Phosphorylation at three conserved sites in the kinase domain is required for catalytic activity. Specifically, the threonine 497 (T497) of PKC α is in the activation loop of the kinase domain and is phosphorylated by the constitutively active phosphoinositide-dependent kinase-1 (PDK-1).

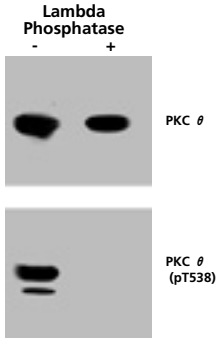


Western blot analysis of PKC α (pT497) in human T leukemia. Lysates from Jurkat cell line were probed with purified mouse anti-PKC α (pT497) monoclonal antibody at concentrations of 4.0, 2.0, and 1.0 μ g/ml (Lanes 1, 2, and 3, respectively) with (left panel) or without (right panel) lambda protein phosphatase treatment. PKC α (pT497) is identified as a band of 75 kDa in the untreated lysate.

PKC θ

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612734	PKC θ (pT538)	19	Ms IgG2a	Purified	50 μg	￥31,000
612735	PKC θ (pT538)	19	Ms IgG2a	Purified	150 μg	￥53,000

The Protein Kinase C (PKC) family of homologous serine/threonine protein kinases is involved in a number of processes such as growth, differentiation, and cytokine secretion. Three categories exist, conventional PKC (cPKC), novel PKC (nPKC), and atypical PKC (aPKC). These proteins are products of multiple genes and alternative splicing and have different modes of activation. For example, cPKC's members (α, βI, βII, and γ) are calcium activated, phospholipid-dependent serine/threonine specific enzymes which can also be activated by phorbol esters.However, the novel PKC (nPKC) subfamily members (δ, ε, η, and θ isoforms) and the atypical PKC (PKC) subfamily members (ζ, ι ,and λ isoforms) are Ca^{2+} independent. The aPKC members are unique in that their activity is independent of diacylglycerols and phorbol esters. The PKC pathway represents a major signal transduction system that is activated following ligand-stimulation of transmembrane receptors by hormones, neurotransmitters and growth factors. PKC θ transcripts are expressed in most tissues with the highest levels being found in hematopoietic tissues and cell lines, including T cells and thymocytes. *PKC θ* mRNA is readily detectable in skeletal muscle, lung, and brain. However, *PKC θ* expression is not detected in several human carcinoma cell lines. Abundant expression of this PKC isozyme in hematopoietic cells suggests that it may have a role in growth and differentiation processes of these cells.

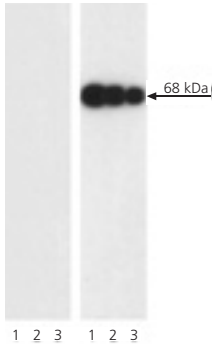


Jurkat cells were treated with Anti-CD3 and were then either left untreated (-)or treated (+) with 200U/ml of lambda phosphatase for 1 hr at 37℃.The top panel was probed with PKC θ (610089) and the bottom panel was probed with PKC θ (pT538).

PLK1

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558400	PLK1 (pT210)	K50-483	Ms IgG1, κ	Purified	0.1 mg	￥68,000

Polo-like kinase (PLK1) is a serine/threonine kinase with structural similarities to Drosophila's Polo kinase and the Cdc5p of Saccharomyces cerevisiae.Like its invertebrate counterparts, PLK1 activity is required for DNA synthesis and is regulated throughout the cell cycle.Furthermore, PLK1 is highly expressed in primary tumors.It associates with the mitotic spindle during mitosis suggesting that, in addition to its role during S phase, PLK1 may play a role during chromosome segregation.This is consistent with its potential role in cancer development. Threonine 210 (T210) is one of the major phoshorylation sites in activated PLK1 obtained from human mitotic cells.



Western blot analysis of PLK1 (pT210) in transformed human epithelioid carcinoma
Lysates from HeLa S3 cell line were probed with purified mouse anti-PLK1 (pT210) monoclonal antibody at concentrations of 0.063, 0.032, and 0.016 μg/ml (Lanes 1,2, and 3, respectively) with (left panel) or without (right panel) lambda protein phosphatase treatment. PLK1 (pT210) is identified as a band of 68 kDa in the untreated cells.

PRK1/PRK2

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558399	PRK1 (pT774)/ PRK2 (pT816)	I85-1151	Ms IgG1, κ	Purified	0.1 mg	￥68,000

Members of the Protein Kinase C (PKC) family of homologous serine/threonine protein kinases are involved in a number of processes such as cell growth, cell differentiation, and cytokine secretion.PKCs are activated by Ca^{2+}, phospholipids, diacylglycerol, phorbol esters, and proteolysis. PRK1 (PKC-Related Kinase 1, also known as PKN1 or PKL1) was originally identified in human hippocampus as a novel protein kinase with sequence homology to PKC.PRK1 contains 942 amino acids with an apparent molecular weight of 120 kDa. Although activated by limited proteolysis, PRK1 is not activated by Ca^{2+}/diacylglycerol or phorbol esters. However, PRK1 is activated by phospholipids and arachidonic acid. PRK1 may regulate cytoskeletal changes since it binds to Rho-GTP and becomes phosphorylated *in vivo*, coincidentally with the formation of focal adhesions and stress fibers.In addition, PRK1 becomes autophosphorylated in several residues, including threonine 774 (T774), resulting in an increased kinase activity. T774 of PRK1 is homologous to T816 in the closely related PRK2 protein (also known as PKN2 or PKL2).

Western blot analysis of PRK1 (pT774) / PRK2 (pT816) in transformed human epithelioid carcinoma.
Lysates from control (left panel) and calyculin A-plus-okadaic acid-treated (right panel) HeLa cell line were probed with purified mouse anti-PRK1 (pT774) / PRK2 (pT816) monoclonal antibody at concentrations of 0.125,0.0625, and 0.031 μg/ml (lanes 1, 2, and 3, respectively). PRK1 (pT774) / PRK2 (pT816) is identified as a band of 120-140 kDa in the treated cells.

Progesterone Receptor

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558387	Progesterone Receptor (pS190)	1154/F12	Ms IgG1, κ	Purified	0.1 mg	￥68,000

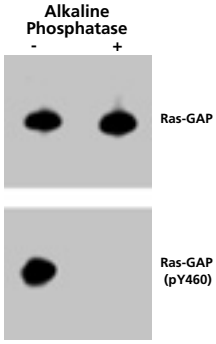
The two isoforms of the *P* rogesterone *R* eceptor (PR-A and PR-B) are ligand-activated transcription factors that mediate many biological responses to progesterone. Interaction of PR with several chaperone molecules is required for proper protein folding and ligand binding. Upon binding to progesterone, the conformation of PR changes, allowing it to bind to specific progesterone response elements in the promoters of target genes.Like other steroid receptors, both PR isoforms have a C-terminal hormone-binding domain and a central DNA-binding domain. The N-terminal domain contains multiple phosphorylation sites, regulates PR's transcriptional activity, and is truncated by 164 amino acids in the A isoform. Specifically, the serine 190 (S190) site is present in both PR isoforms, affects PR's transcriptional activity, and is phosphorylated, in the absence of the hormone ligand, by cyclin A/cyclin-dependent protein kinase 2. The orthologous phosphorylation site in mouse PR is S191.

Western blot analysis of Progesterone Receptor (pS190) in human breast ductal carcinoma.
Lysates from control (left panel) and synthetic progestin R5020-treated (right panel) T-47D cell line were probed with purified mouse anti-Progesterone Receptor (pS190) monoclonal antibody at concentrations of 0.0039, 0.0019, and 0.0010μg/ml (Lanes 1, 2, and 3, respectively). PR-A (pS190) and PR-B (pS190) are identified as bands of 90 and 118 kDa, respectively. They are both up-regulated in the treated cells.

Ras-GAP

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612736	Ras-GAP (pY460)	19A	Ms IgG1	Purified	50μg	￥31,000
612737	Ras-GAP (pY460)	19A	Ms IgG1	Purified	150μg	￥53,000

p21^{ras} acts as a signal transducer and molecular switch, it is active when bound to GTP, and inactive when bound to GDP. Two classes of molecules help regulate p21^{ras} nucleotide status. Guanine nucleotide exchange factors (GEFs) stimulate the dissociation of GDP from p21^{ras} while Ras-GAP/p120GAP, serves to down-regulate p21^{ras} by stimulating its otherwise weak intrinsic GTPase activity. The Ras-GTPase stimulating activity has been found to reside in the carboxy-terminal region of Ras-GAP, while the amino-terminal region contains two SH2 domains and an intervening SH3 domain.In cells stimulated with EGF (Liu et al 1991) or transformed by pp60$^{v\text{-}src}$,Ras-GAP becomes phosphorylated on both tyrosine and serine residues and forms distinct complexes with two phosphorylated proteins of 62 and 190kDa. The tyrosine phosphorylation of Ras-GAP may modulate its subcellular localization and activity as a negative regulator of p21^{ras}.



RSV-3T3 cells were either left untreated (-) or treated (+) with 50μg/ml of alkaline phosphatase for 30 min at 37℃. The top panel was probed with Ras-GAP (Cat.No.610040) and the bottom was probed with Ras-GAP (pY460).

Rb

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558385	Rb (pS780)	J146-35	Ms IgG1, κ	Purified	0.1 mg	￥68,000
558389	Rb (pS807/pS811)	J112-906	Ms IgG1, κ	Purified	0.1 mg	￥68,000
554164	Rb Underphosphorylated	G99-549	Ms IgG1, κ	Purified	0.1 mg	￥55,000

The retinoblastoma gene product (Rb) is well known as a tumor suppressor and is either absent or mutated in many human tumors. Retrovirus-mediated gene transfer of the wild-type Rb gene into several Rb mutant neoplastic cell lines suppresses their tumorgenicity. Rb is a 110-kDa nuclear phosphoprotein that undergoes differential phosphorylation during the cell cycle. During G1 phase, Rb is predominantly in a hypophosphorylated state. It becomes increasingly phosphorylated throughout the cell cycle until late mitosis, when substantial dephosphorylation occurs. Hypophosphorylated Rb interacts with a number of cellular proteins including the E2F transcription factor, several cyclins, RBP-1, RBP-2, c-Abl, c-myc, N-myc, and p46. Phosphorylation of Rb at various sites, by Cyclin-dependent protein kinases, inhibits the binding of Rb to these proteins. Rb is thought to mediate its effects, in part, via the repression of genes required for proliferation. For example, Rb is specifically recruited to promoters containing E2F sites and actively represses E2F mediated transcription. Rb also stimulates the activity of other transcription factors, although the mechanisms are less clearly defined. Thus, Rb appears to regulate transcription in its aim to control cell growth.

Western blot analysis of Rb (pS780) in human embryonic skin cells.
Lysates from serum-starvedl (left panel) and fetal bovine serum-stimulated (right panel) WS1 cell line were probed with purified mouse anti-Rb (pS780) monoclonal antibody at concentrations of 4.0,2.0, and 1.0μg/ml (Lanes 1, 2,and 3, respectively). Rb (pS780) is identified as a band of 110 kDa in the stimulated cells.

RNA Polymerase II

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
552039	RNA Polymerase II Phospho-specific	CTD8A7	Ms IgM	Purified	50μg	￥38,000
552041	RNA Polymerase II Phospho-specific	CTD8A7	Ms IgM	Purified	150μg	￥68,000
552040	RNA Polymerase II Phospho-specific	CTD4H8	Ms IgG1	Purified	50μg	￥38,000
552042	RNA Polymerase II Phospho-specific	CTD4H8	Ms IgG1	Purified	150μg	￥68,000

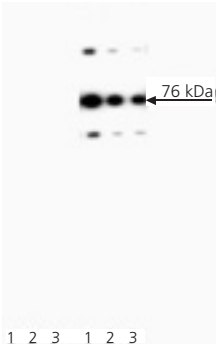
A fundamental process in gene control involves the regulation of transcription, the process of synthesizing an RNA molecule from a DNA template. The main enzyme responsible for RNA synthesis is RNA polymerase.Eukaryote organisms contain three distinct kinds of RNA polymerase that reside in the nuclei, designated RNA polymerase I, II, and III; each responsible for transcribing a different type of RNA.For example, RNA polymerase II is involved in transcribing mRNA as well as snRNA and scRNA. RNA polymerase consists of core subunits as well as smaller subunits.The carboxyl end of the large core subunit contains a unique heptapeptide repeat with a consequence sequence of YSPTSPS, designated (CTD), and is involved in the regulation of transcription. Phosphorylation of these repeats (mammals contain approximately 52 repeats) is associated with elongation complexes, whereas the hypo-phosphorylated form is important in the transcription preinititation complex at the promoter. Deletion of over half of the CTD sequence leads to disruption of initiation. The mammalian RNA polymerase II large core subunit is approximately 1970 amino acids in size (SWISS-PROT:P24928), although phosphorylation may retard its migration in SDS/PAGE.

Western blot analysis of RNA Polymerase II.
Lysate from HeLa cells was probed with anti-RNA Polymerase II Phospho-specific (clone CTD8A7, Cat.No. 552039) at concentrations of 0.25 (lane 1), 0.125 (lane 2), and 0.06μg/ml (lane 3).RNA Polymerase II is identified at ~220 kDa. BD Biosciences Pharmingen also offers another RNA Polymerase II antibody (clone CTD4H8, Cat.No.552042; 0.008μg/ml, lane 4), which recognizes both the hypo- (~200 kDa) and hyper-phosphorylated (~220 kDa) forms of RNA Polymerase II.

SLP-76

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558388	SLP-76 (pY113)	J80-373	Ms IgG1, κ	Purified	0.1 mg	￥68,000
558367	SLP-76 (pY128)	J141-668	Ms IgG1, κ	Purified	0.1 mg	￥68,000
558362	SLP-76 (pY145)	J81-1214.48	Ms IgG1, κ	Purified	0.1 mg	￥68,000

SLP-76 (S H2 domain-containing L eukocyte P rotein of 76 kDa) is a tyrosine phosphoprotein that is involved in the T cell receptor (TCR)-mediated intracellular signaling pathway.It may be involved in the signaling pathways of other peripheral blood leukocytes; thymic/splenic cells; and in human T, B, and monocytic cell lines. SLP-76 consists of several motifs that signify its importance in protein-protein interactions involved in intracellular signaling pathways, such as the SH2 domain in the C-terminus, the three amino-terminus 17-amino acid repeats with conserved tyrosine and acidic residues (DYE(S/P)P), and a proline rich region. SLP-76 has been shown to associate with Gads, Grb2, PLC g 1, SLAP-130, and Vav, all of which are part of the signaling cascade in T lymphocytes.An early event in the T cell activation pathway is the phosphorylation, by the Syk-family kinase ZAP-70, of SLP-76 at the three conserved tyrosine motifs, which then mediate interactions with downstream effectors. The phosphorylated tyrosine 113 (Y113) brings the Rho-family guanine-nucleotide exchange factor Vav1 into the activation complex where it may mediate TCR-stimulated in actin cytoskeletal rearrangement.

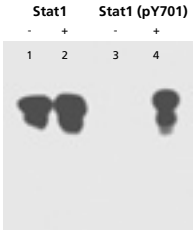


Western blot analysis of SLP-76 (pY113) in human T leukemia.
Lysates from control (left panel) and hydrogen peroxide-activated (right panel) Jurkat cells were probed with purified mouse anti-SLP-76 (pY113) monoclonal antibody at concentrations of 0.0039, 0.0019, and 0.0010μg/ml (Lanes 1, 2, and 3, respectively). SLP-76 (pY113) is identified as a band of 76 kDa in the treated cells.

Stat1

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612132	Stat1 (pY701)	14	Ms IgG1	Purified	50μg	￥31,000
612133	Stat1 (pY701)	14	Ms IgG1	Purified	150μg	￥53,000
612232	Stat1 (pY701)	4a	Ms IgG2a	Purified	50μg	￥31,000
612233	Stat1 (pY701)	4a	Ms IgG2a	Purified	150μg	￥53,000

The Stat proteins function both as cytoplasmic signal transducers and as activators of transcription. Stat1 (Stat91/84) and Stat2 (Stat113) were the first identified members of the Stat protein family. The 91 and 84kDa proteins are the result of alternate splicing of the Stat1 gene,and Stat91 has an additional 38 C-terminal amino acids.Both Stat1 and Stat2 polypeptides contain both SH2 and SH3 domains, and are components of the ISGF3 (interferon-stimulated gene factor 3) complex. ISGF3 is the primary transcription activator induced by the binding of interferon to a specific cell surface receptor.In response to the binding of IFNα, IFNγ, EGF, PDGF, or CSF-1 to their respective receptors, the Stat1 subunits become tyrosine-phosphorylated at Tyr 701 and the complex is translocated to the nucleus. This results in the formation of an active complex that includes the DNA binding p48 subunit. This complex is responsible for modulating the transcription of the interferon-stimulated genes (ISGs). Thus, phosphorylation of Tyr 701 in Stat1 occurs in response to growth factors and cytokines, and is essential for normal transcriptional activity of the ISGF3 complex.



Western blot analysis using anti-Stat1 (610115) and anti-Stat1 (pY701) (612132) in A431 cells either untreated (lanes 1 and 3) or treated with EGF (lanes 2 and 4).

Stat2

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558095	Stat2 (pY690)	7a/Stat2 (pY690)	Ms IgG1, κ	Purified	0.1 mg	￥68,000

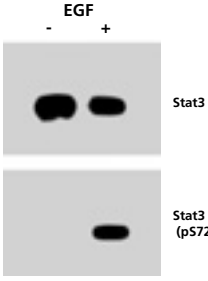
STAT proteins are transcription factor subunits that play critical roles in the signal transduction pathways for various cytokines. STAT2 is a 113-kDa protein having approximately 40% homology with STAT1 STAT2 interacts with STAT1 for the formation of ISGF3 and the efficient activation of STAT1 in response to IFN-α. STAT2 phosphorylation at the tyrosine 690 residue after IFN-α activation can occur independently of STAT1 but the localization and nuclear stability of phosphorylated STAT2 is dependent on STAT1.

Western blot analysis of Stat2 (pY690). U973 cells were either left untreated (A) or treated with IFN-α(B). Blots were probed with anti-Stat2 (pY690) antibody at concentrations of 0.5, 0.25, and 0.125μg/ml. Stat2 (pY690) is identified as a band of ~113 kDa

Stat3

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612542	Stat3 (pS727)	92	Ms IgG1	Purified	50μg	￥31,000
612543	Stat3 (pS727)	92	Ms IgG1	Purified	150μg	￥53,000
612356	Stat3 (pY705)	4	Ms IgG2a	Purified	50μg	￥31,000
612357	Stat3 (pY705)	4	Ms IgG2a	Purified	150μg	￥53,000

The Stat proteins function as both cytoplasmic signal transducers and activators of transcription.Stat3 is a 92kDa protein that is activated as a DNA binding protein through cytokines,such as IL-6,and growth factors, such as EGF. Phosphorylation of Stat3 occurs on both tyrosine and serine residues and is required at both of these sites for maximum activation. Stat3 is phosphorylated at Ser727 via the MAPK pathway. The Ser-727 residue is located at a conserved Pro-X-Ser-Pro sequence, which is recognized by the protein kinase ERK. Activation through the Ser-727 residue is thought to lead to initiation of transcription. Tyrosine phosphorylation at Tyr-705, in response to cytokine stimulation, is generally mediated by JAK1. Upon activation, Stat3 dimerizes, translocates to the nucleus, and binds DNA response elements thereby regulating gene expression.It appears that Stat3 binds to DNA as a homodimer, but it is also capable of binding as a heterodimer with Stat1. Stat3 is widely expressed and can bind to the sis-inducible element (SIE) site from the c-fos promoter. This site is similar to the GAS element that is present in IFN-γ induced genes. Thus, phosphorylation of Ser-727 and Tyr-705 in Stat3 occurs in response to growth factors and cytokines, and is essential for normal transcription activity.

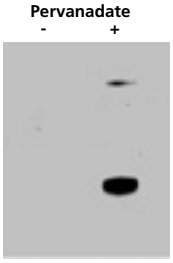


A431 cells were either left untreated (-) or treated (+) with 100ng/ml EGF for 5 minutes at 37℃. The top panel was probed with Stat3 (cat. #610189) and the bottom was probed with Stat3 (pS727) (cat. #612542).

Stat4

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
612738	Stat4 (pY693)	38	Ms IgG2b	Purified	50μg	￥31,000
612739	Stat4 (pY693)	38	Ms IgG2b	Purified	150μg	￥53,000

The Stat proteins function as both cytoplasmic signal transducers and as activators of transcription (reviewed by Kisseleva). Seven mammalian STATs have been identified: Stat1-4, Stat5a, Stat5b, and Stat6. Stat4 has been shown to play an important role in development of T helper cells, specifically the Th1 subset.Stat4 is activated by IL-12 and by type I interferons (IFN). Knockout mice supported the role that Stat4 plays in IL-12 signaling because lymphocytes from Stat4-/-mice could not differentiate into Th1 cells or produce IFN gamma in response to treatment with IL-12. IFN gamma plays an important role in host defense. A key component in the activation of Stat4 is the phosphorylation on tyrosine and serine residues in response to IL-12 stimulation. IL-12 stimulation leads to the phosphorylation of Stat4 on tyrosine 693 and serine 721. Transcriptional activity of Stat4 has been shown to be significantly reduced when residues Y693 and S721 are mutated. Clone 38 recognizes the phosphorylated form of Stat4 (Y693). A phosphorylated peptide corresponding to residues around tyrosine 693 from human Stat4 was used as the immunogen. The antibody is routinely tested by western blot on K-562 cells treated with pervanadate.

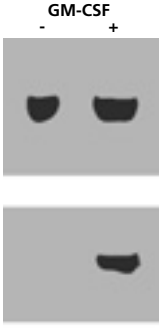


K-562 cells were either left untreated (-) or treated (+) with1.0 mM pervanadate for 20 min at 37℃. The image shows a blot that was probed with Stat4 (pY693)

Stat5

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
611818	Stat5 (pY694)	Polyclonal		Purified	50μg	￥31,000
611819	Stat5 (pY694)	Polyclonal		Purified	150μg	￥53,000
611964	Stat5 (pY694)	47	Ms IgG1	Purified	50μg	￥31,000
611965	Stat5 (pY694)	47	Ms IgG1	Purified	150μg	￥53,000

Mammary gland factor (MGF) has been shown to play a critical role in the lactogenic hormone response and has been well characterized in mammary epithelial cells.The SH3 domain of MGF shows extensive homology with the SH2 domains of Stat1 and Stat2. This homology leads to speculation that MGF may have a broader physiological role than originally anticipated and has led to its classification as a member of the Stat family. Stat5 (MGF) mRNA expression is highest in mammary gland tissue. Lower levels are found in ovary, thymus, spleen, kidney, lung, muscle, and the adrenal gland. The peptide hormone, prolactin, binds to the prolactin receptor (PRLR) to initiate the lactogenic response. There are at least three forms of PRLR; however, only the long form is able to activate the 92kDa Stat5 protein by inducing phosphorylation at Tyr694. Once phosphorylated, Stat5 becomes an essential transcription factor which binds to the β-casein gene promoter. Stat5 activity is tightly regulated throughout gestation, lactation, and post-lactation. Treatment of activated Stat5 with a protein tyrosine phosphatase results in the loss of DNA binding activity. The presence of an SH2 domain within Stat5 suggests that it may directly interact with protein tyrosine kinases (PTKs) such as JAK2.

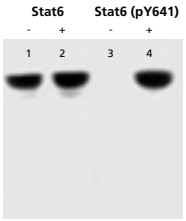


U937 were untreated or treated with GM-CSF (15ng/ml) for 20 min at 37℃. The top panel was probed with Stat5 (cat. #610191) and the bottom was probed with Stat5 (pY694) (cat. #611818).

Stat6

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
611566	Stat6 (pY641)	18	Ms IgG2a	Purified	50μg	￥31,000
611567	Stat6 (pY641)	18	Ms IgG2a	Purified	150μg	￥53,000
611820	Stat6 (pY641)	Polyclonal		Purified	50μg	￥31,000
611821	Stat6 (pY641)	Polyclonal		Purified	150μg	￥53,000

Interleukin-4 (IL-4),a major immunoregulatory cytokine, is secreted by activated T lymphocytes, basophils, and mast cells and plays an important role in modulating T helper cell lineage development.It induces specific gene expression via the tyrosine phosphorylation of Stat6 at tyrosine 641 (Y641). Stat6, a member of the **s**ignal **t**ransducers and **a**ctivators of **t**ranscription protein family, mediates signals for IL-4 and, possibly, IL-13. While Stat6 is widely expressed in human tissues, it exhibits elevated expression in peripheral blood lymphocytes, colon, intestine, ovary, prostate, thymus, spleen, kidney, liver, lung, and placenta. Following cytokine receptor ligation, Jak kinases are activated and phosphorylate the cytoplasmic tails of the oligomerized receptors. The SH3: SH2 domain of Stat6 associates with tyrosine-phosphorylated IL-4 receptor and the proximal Jak kinase phosphorylates Stat6 at Y641 on the C-terminal side of the SH2 domain. Stat6 is then released from the receptor, dimerizes, and is thought to contact the basal transcription machinery by binding to p300/CBP. Thus, Stat6 mediates the IL-4 signal and is essential for the proper development of adaptive immunity.

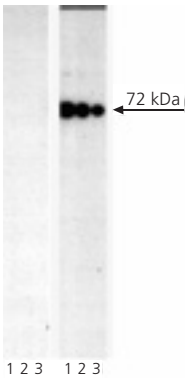


Western blot analysis using anti-Stat6 (611290) and anti-Stat6 (pY641) (611566) in human endothelial cells either untreated (lanes 1 and 3) or treated with IL-4 (lanes 2 and 4).

Syk

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558167	Syk (pY348)	I120-722	Ms IgG1, κ	Purified	50μg	￥38,000

Syk is a non-receptor protein-tyrosine kinase that is closely related to ZAP70 and plays crucial roles in the development and receptor-mediated signaling of most leukocytes and in vascular integrity. Syk is expressed in hematopoietic cells, including B lymphocytes,immature (CD4, CD8 double-negative and double-positive) thymocytes, and myeloid cells, epithelial cell lines,and normal breast tissue.Mature (CD4 or CD8 single-positive) thymocytes and peripheral αβ TCR-bearing T lymphocytes have very low or undetectable levels of Syk. Syk contributes to the signal transduction process by binding to ITAMs (I mmunoreceptor T yrosine-based A ctivation M otifs) of immune receptors, including Igα and Igβ (CD79a and b), TCRζ, CD3ε, and FcRγ. Upon receptor activation, Syk binds to phosphorylated ITAMs via its two N-terminal SH2 domains thereby activating Syk and causing tyrosines in the interdomain, between the SH2 and Kinase domains of Syk, to undergo auto-phosphorylation and phosphorylation by Lyn. The tyrosine 348 phosphorylation site (pY348) in human Syk is orthologous to tyrosine 342 in mouse and rat Syk and tyrosine 315 in human ZAP70. This phosphorylated site can act as a binding site for other signaling molecules, such as PLCγ, Vav, and Fgr.



Western blot analysis of Syk (pY348). Lysate from control (left panel) and pervanadate-treated (right panel) Ramos cells (Burkitt's lymphoma) were probed with mAb I120-722 at concentrations of 0.25 (lanes 1), 0.125 (lanes 2), and 0.0625 (lanes 3) μg/ml. Syk (pY348) is identified as a strong band of 72 kDa in the pervanadate-treated Ramos cells.

TBK1

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558397	TBK1 (pS172)	J133-1171	Ms IgG2b, κ	Purified	0.1 mg	￥68,000

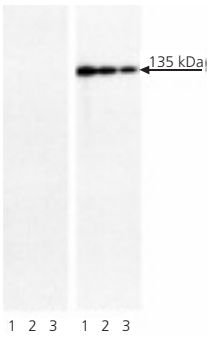
NF-κB is a ubiquitously expressed transcription factor that regulates many cytokine and Ig genes. It is involved in immune, inflammatory, viral, and acute phase responses. In most cells, NF-κB is sequestered in an inactive cytoplasmic form via interactions with the inhibitory proteins IκBα, IκBβ, and κBε. Stimulation induces the release, activation, and nuclear translocation of NF-κB. Release of NF-κB results from the phosphorylation and proteolytic degradation of the IκB proteins. Two cytokine-inducible I B kinases (IKKα and IKKβ) phosphorylate and target the IκB proteins for degradation via the ubiquitin pathway. IKKγ/NEMO, a third member of the IKK complex, functions as a regulatory subunit and interacts directly with IKKβ. TBK1 (TANK-binding kinase 1, also known as T2K or NAK), a protein of 729 amino acids, is another member of the IKK family of kinases regulating NF-κB downstream of the tumor necrosis factor and Toll-like receptor pathways.TBK1 forms a complex with the adaptor proteins TANK (TRAF-associated NF-κB activator) and TRAF2 (TNF-receptor-associated factor 2), and this oligomer is required for activation and phosphorylation of TBK1 at serine 172 (S172).

Western blot analysis of TBK1 (pS172) fusion protein.
Lysates from control 293 fetal kidney cell line (left panel) and transfected 293T/IRF-7/TBK-1 cells (right panel) were probed with purified mouse anti-TBK1 (pS172) monoclonal antibody at concentrations of 0.0312,0.0156, and 0.0078μg/ml (Lanes 1, 2, and 3, respectively). TBK1-GFP fusion protein is identified as a band of 115 kDa in the transfected cells, which can be completely removed by treatment with lambda protein phosphatase (data not shown).The molecular weight of native human TBK1 protein has been reported to be 80 kDa.

Tyk2

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558394	Tyk2 (pY1054/pY1055)	I114-617	Ms IgG1, κ	Purified	0.1 mg	￥68,000

Tyk2 is a widely expressed protein tyrosine kinase (PTK) of 1187 amino acids (135kDa). The N-terminal kinase-related domain of Tyk2 shows 54% identity to the kinase-related domain of the JAK1 kinase.Surprisingly, the catalytic region of JAK1 shares more sequence identity to Tyk2 than it does with JAK2 kinase. The similarity of structure between Tyk2 and JAK1 suggests that both may be involved in related phosphorylation cascades. Tyk2 plays a critical role in the interferon (IFN)-α/β response while JAK1 shows involvement in both the IFN-α/β and IFN-g signal transduction pathways. JAK2, however, appears to be required only in the IFN-γ response.It has been suggested that a portion of the large extracatalytic domain of Tyk2 could interact with components of the IFN α/β receptor.

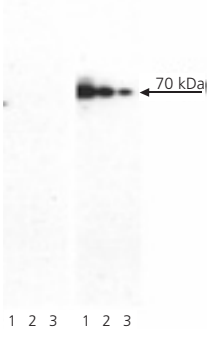


Western blot analysis of Tyk2 (pY1054/pY1055) in human Burkitt's lymphoma.
Lysates from control (left panel) and IFN-α-activated (right panel) Daudi cells were probed with purified mouse anti-Tyk2 (pY1054/pY1055) monoclonal antibody)at concentrations of 4, 2, and 1μg/ml (Lanes 1, 2, and 3, respectively). Tyk2 (pY1054 / pY1055) is identified as a band of 135 kDa in the treated cells.

ZAP-70

CAT. NO.	DESCRIPTION	CLONE	ISOTYPE	FORMAT	SIZE	希望小売価格
558365	ZAP-70 (pY292)	J34-602	Ms IgG1, κ	Purified	0.1 mg	￥68,000
612574	ZAP-70 (pY319)	17a	Ms IgG1	Purified	50μg	￥31,000
612575	ZAP-70 (pY319)	17a	Ms IgG1	Purified	150μg	￥53,000
558247	ZAP-70 (pY493)	1a/ZAP70 (pY493)	Ms IgG1, κ	Purified	0.1 mg	￥68,000

The 70-kDa ζ chain-associated protein (ZAP70) is a Syk-family protein tyrosine kinase (PTK) that associates with the ζ subunit of the T cell antigen receptor (TCR) and undergoes tyrosine phosphorylation following TCR stimulation. ZAP70 contains two SH2-like domains with the PTK domain located at the C-terminus. It appears that both ZAP70 and Syk are recruited to the phosphorylated CD3 and ζ subunits after TCR stimulation. TCR-mediated Lck activity leads to phosphorylation of ZAP70 on Tyrosine 493 in the regulatory loop of the PTK domain leading to upregulation of ZAP70 kinase activity. Tyrosine 292 (Y292), in the linker region between the SH2 and PTK domains, is autophosphorylated by the activated PTK domain. By binding with c-Cbl, the phosphorylated Y292 can down-regulate TCR signaling.



Western blot analysis of ZAP70 (pY292).
Lysates from control (left panel) and anti-CD3 plus anti-CD28-activated (Cat. No.555329 and 555725, respectively; right panel) Jurkat cells were probed with purified mouse anti-ZAP70 (pY292) at concentrations of 2.0, 1.0, and 0.5μg/ml (Lanes 1, 2, and 3, respectively). ZAP70 (pY292) is identified as a strong band of 70 kDa in the treated cells.

Antibody Sampler Kit

CAT. NO.	DESCRIPTION	SIZE	希望小売価格
612476	EGFR Activation Sampler Kit	各10μg	￥67,000

上皮細胞成長因子レセプター（EGFR）のシグナルは多くの経路を通じて下流に伝えられます。これらの経路は上皮の増殖を刺激し、胃酸分泌を阻害し、カリウム・チャンネル活性を調整し、細胞接着を制御します。成長因子およびそれらのレセプターに典型的なように、リガンドがEGFRに結合する事により、そのチロシン・キナーゼ領域が活性化されますが、チロシン・キナーゼ領域は、次にGrb2、JAK1、Src、PI-3Kなどを介した多くの下流のシグナル伝達経路にシグナルを伝えます。アダプター分子Grb2は、活性化されたEGFR のリン酸化チロシン1068へ直接結合することにより活性化されます。活性化されたGrb2がSos-1と相互作用してRsa/Raf経路を活性化する事により、ERK1/2のThr202とTyr204がリン酸化されます。このMAPキナーゼは、転写調節因子を含めた多くの細胞タンパク質におけるリン酸化の進行を制御します。EGFRはStatのJAKリン酸化も制御します。EGFの刺激を受けてStat1のTyr701がリン酸化された後、活性化されたStat1が細胞核へ移行して遺伝子転写を制御します。PI-3Kの活性もまたEGFR の活性によって制御されます。EGFの刺激がPI-3Kの活性を引き起し、PKB/AktのS473をリン酸化してPKD1を活性化します。活性化されたPKB/AktはCasepase-9やGSK-3βのような上流のアポトーシス関連タンパク質の活性を制御します。従ってEGFRのシグナルは、タンパク質の活性や遺伝子の転写に係わる複数の細胞シグナル経路を修正するのに役に立ちます。

Antibody	Cat#(50μg)	Isotype	MW	WB	IP	IF	IH	Hu	Dog	Rat	Ms	Chick	Control*	Dilution
EGF Receptor	610016	IgG1	180	+	nat/den	+	-	+			+		A431+EGF	1:2500
EGF Receptor (activated)	610025	IgG1	180	+	nat/den	+	-	+	-	-	-	-	A431+EGF	1:1000
ERK1	610030	IgG1	44/22	+	den	+	+	+	+	+	+	+	Rat Pituitary	1:5000
ERK1/2 (pT202/pY204)	612358	IgG1	44/22	+		+		+		+	+		A431+EGF	1:1000
PKBα/Akt	610836	IgG1	59	+	-	+	-	+	+	+	+		HCT-8	1:250
Akt (pS473),		IgG1	59	+				+		+	+		NIH3T3+Vana/PDGF	1:250
Stat1 (N-terminus)	610115	IgG1	91/84	+	nat/den	+	+	+	+	+	+	+	A431	1:250
Stat1 (pY701)	612232	IgG2a	84/91	+	nat/den	+		+			+		A431+EGF	1:1000

* ウエスタンブロット用陽性コントロール（本キットには含まれません）　各10μg (250μg/mL)

CAT. NO.	DESCRIPTION	SIZE	希望小売価格
612544	MAP Kinase Activation Sampler Kit	各10μg	￥67,000

Serine/Threonineキナーゼファミリーは、細胞中のストレスに対する応答と同様に、各種ホルモンや増殖因子によって細胞刺激された後に活性化され、マイトジェン活性キナーゼタンパク質として知られています。このファミリーにはERK1/2,JNK/SAPK1、p38を含めた3つの重要なキナーゼが存在します。これらのキナーゼは全て2箇所のリン酸化反応サイトを持ち活性化を調整します。分子量44kDaのSer/Thr特異性プロテインキナーゼは、MAPキナーゼ（ERK1&ERK2）であり、インスリン、血小板由来増殖因子（PDGF）、あるいは上皮増殖因子（EGF）による刺激を受けると、細胞内で活性化されます。ラットの場合には、これらのタンパク質においてThr-202/Tyr-204、Thr-183/Tyr-185が個々にリン酸化されます。ERK1とERK2は他のシグナル伝達経路と同様に増殖因子に関係していると見なされています。増殖因子の刺激はRasとRafの活性化を引き起こし、MEK1（MAPK/ERK）のリン酸化を引き起こし、次には2段階のリン酸化を経てERKを活性化します。従ってERK1、2は細胞の成長、分化を調節する複数のシグナル伝達系の中で重要なキナーゼです。内毒素、UV照射、熱、高浸透などの外部刺激は、遺伝子発現と一緒に多数の細胞応答を引き起こし、新しい環境に対しての調節へと向かわせます。ストレスシグナルはp38、JNK/SAPK1キナーゼの両方を刺激します。JNK/SAPK1の活性はMKK4とMKK7によるThr-183/Tyr-185のリン酸化を必要とします。活性化JNK/SAPK1は他のキナーゼや前炎症性サイトカインのような遺伝子発現を引き起こす複数の転写因子をリン酸化します。P38MAPキナーゼはp38α、β、γ、δを含みます。P38MAPKの活性化は、MKK3、MKK4、MKK6によるThr-180/Tyr-182のリン酸化を通して調節されます。この事は多数の異なった遺伝子発現を引き起こす複数の転写因子（NF-κB、ATF-2、Elk-1、CHOP）の活性化の要因となります。従って、これらのMAPキナーゼは、細胞と細胞核の両方を調節する多数の異なったシグナル伝達系の中で重要な役割を有しています。

Antibody	Cat#(50μg)	Isotype	MW	WB	IP	IF	IH	Hu	Dog	Rat	Ms	Chick	Control*	Dilution
ERK1	610030	IgG1	44/42	+	den	+	+	+	+	+	+	+	Rat Pituitary	1:5000
ERK1/2 (pT202/pY204)	612358	IgG1	44/42	+		+		+		+	+		A431+EGF	1:1000
pan-JNK/SAPK1	610627	IgG1	49	+	-	+	+	+	+	+	+	+	PC12	1:250
JNK (pT183/pY185)	612540	IgG1	43/56	+				+		+	+		HeLa+Anisomycin	1:250
p38α/SAPK2a	612168	IgG1	42	+		+		+	+	+	+		Jurkat	1:5000
p38 (pT180/pY182)	612280	IgG1	42	+		+		+		+	+		HeLa+Anisomycin	1:2500

* ウエスタンブロット用陽性コントロール（本キットには含まれません）　各10μg (250μg/mL)

CAT.NO.	DESCRIPTION	SIZE	希望小売価格
612477	Stat Activation Sampler Kit	各10μg	￥67,000

Statタンパク質は、細胞質シグナル伝達物質および転写の活性化因子として2つの機能を果たしています。これらのタンパク質はSH2とSH3のドメインを含み、リン酸化されたserineとtyrosineの両方によって活性化されます。Stat1はIFN-α、IFN-γ、EGF、PDGFの結合を受けるか、CSF-1がそれらのそれぞれのレセプターに結合することによって活性化されます。この活性化は、細胞核への移行後のTyr-701のチロシンリン酸化に関与しています。Stat3は92kDaのタンパク質で、EGFのような増殖因子、IL-6のようなサイトカインを介したDNA結合タンパク質として活性化されます。Stat3の活性化は、JAK1のTyr-705がチロシンリン酸化されることを経て発生します。Stat5（MGF）のcDNA配列は決定されていますが、推定上のアミノ酸配列はStat1およびStat2のアミノ酸配列と類似しています。Stat5の活性化はGMCSFのような増殖因子、プロラクチンのようなペプチドホルモンに応じたTyr-694のリン酸化によって発生します。Stat5内部のSH2ドメインの存在は、JAK2のようなチロシンキナーゼタンパク質と直接的相互作用する事を示唆します。Stat6はIL-4刺激に応じて活性化されます。Stat6のSH3：SH2ドメインはチロシンリン酸化されたIL-4レセプターと会合します。そして近接しているJAKキナーゼがSH2ドメインのC末端側にあるStat6のTyr-641をリン酸化します。Stat6はその後そのレセプターから離れて二量体を形成し、p300/CBPと結合する事によって基礎的な転写機構に関与していると考えられています。

Antibody	Cat#(50μg)	Isotype	MW	WB	IP	IF	IH	Hu	Dog	Rat	Ms	Chick	Control*	Dilution
Stat1 (C-terminus)	610185	IgG2b	91/84	+	nat/den	+	-	+	+	+	+	+	A431	1:1000
Stat1 (pY701)	612132	IgG1	84/91	+	nat/den	+		+			+		A431+EGF	1:1000
Stat3	610189	IgG1	92	+	nat/den	-	-	+	+	+	+	+	A431	1:2500
Stat3 (pY705)	612356	IgG2a	92	+				+		+	+		A431+EGF	1:500
Stat5	610191	IgG2b	92	+	-	+	+	+	+	+	+		Human Endothelial	1:250
Stat5 (pY694)	611964	IgG1	92	+				+					A431+EGF	1:500
Stat6	611290	IgG1	100	+		+		+		+	+		Jurkat	1:500
Stat6 (pY641)	611566	IgG2a	100	+		+		+					HE+IL-4	1:250

* ウエスタンブロット用陽性コントロール（本キットには含まれません）　各10μg (250μg/mL)

製品一覧（CAT. NO.順）

CAT. NO.	DESCRIPTION	CLONE	FORMAT	SIZE	希望小売価格	PAGE
550747	Akt (pS472/pS473)	104A282	Purified	50μg	￥38,000	6
551348	NF-H Phospho-Specific	RNF404	Purified	50μg	￥38,000	17
551818	IκBα(pS32/pS36)	39A1431	Purified	50μg	￥38,000	15
551957	NF-M Phospho-Specific	RNF403	Purified	50μg	￥38,000	18
551958	NF-H Phospho-Specific	RNF405	Purified	50μg	￥38,000	17
551962	NF-M Phospho-Specific	RNF406	Purified	50μg	￥38,000	18
552039	RNA Polymerase II Phospho-specific	CTD8A7	Purified	50μg	￥38,000	25
552040	RNA Polymerase II Phospho-specific	CTD4H8	Purified	50μg	￥38,000	25
552041	RNA Polymerase II Phospho-specific	CTD8A7	Purified	150μg	￥68,000	25
552042	RNA Polymerase II Phospho-specific	CTD4H8	Purified	150μg	￥68,000	25
554164	Rb Underphosphorylated	G99-549	Purified	0.1 mg	￥55,000	24
558029	CD22 (BL-CAM) (pY828)	46	Purified	0.1 mg	￥68,000	8
558030	CD22 (BL-CAM) (pY843)	12a	Purified	0.1 mg	￥68,000	8
558033	Ezrin (pY353)	I66-386	Purified	0.1 mg	￥68,000	13
558034	Btk (pY551) & Itk (pY511)	24a/BTK (Y551)	Purified	0.1 mg	￥68,000	7
558035	c-Cbl (pY774)	29/c-Cbl (Y774)	Purified	0.1 mg	￥68,000	8
558036	c-Jun (pS63)	2	Purified	0.1 mg	￥68,000	10
558095	Stat2 (pY690)	7a/Stat2 (pY690)	Purified	0.1 mg	￥68,000	26
558096	gp130 (pS782)	6a/gp130 (pS782)	Purified	0.1 mg	￥68,000	14
558167	Syk (pY348)	I120-722	Purified	50μg	￥38,000	28
558203	p120 Catenin (pT310)	22	Purified	0.1 mg	￥68,000	20
558247	ZAP-70 (pY493)	1a/ZAP70 (pY493)	Purified	0.1 mg	￥68,000	29
558248	Bcr (pY177)	J52-309	Purified	0.1 mg	￥68,000	6
558316	Akt (pT308)	J1-223.371	Purified	0.1 mg	￥68,000	6
558321	PDGFRβ(pY1009)	J25-602	Purified	0.1 mg	￥68,000	21
558357	Ezrin (pT567)	J37-954.281.307	Purified	0.1 mg	￥68,000	13
558358	PDGFRβ(pY1021)	J105-412	Purified	0.1 mg	￥68,000	21
558359	CREB (pS133)	J151-21	Purified	0.1 mg	￥68,000	10
558360	PDGFRβ(pY857)	J24-425	Purified	0.1 mg	￥68,000	21
558361	PDGFRβ(pY771)	J23-618	Purified	0.1 mg	￥68,000	21
558362	SLP-76 (pY145)	J81-1214.48	Purified	0.1 mg	￥68,000	25
558363	LAT (pY226)	J96-1238.58.93	Purified	0.1 mg	￥68,000	16
558364	Caveolin 2 (pY27)	40/Caveolin 2	Purified	0.1 mg	￥68,000	7
558365	ZAP-70 (pY292)	J34-602	Purified	0.1 mg	￥68,000	29
558366	BLNK (pY84)	J117-1278	Purified	0.1 mg	￥68,000	6
558367	SLP-76 (pY128)	J141-668	Purified	0.1 mg	￥68,000	25
558368	Akt (pS473)	J177-204.20	Purified	0.1 mg	￥68,000	6
558369	p53 (pS37)	J159-641.15.4	Purified	0.1 mg	￥68,000	19
558370	FADD (pS194)	J119-857.36	Purified	0.1 mg	￥68,000	13
558373	CD221 (IGF-1 Receptor) (pY950)	J95-626	Purified	0.1 mg	￥68,000	9
558374	Actopaxin (pS8)	J160-366	Purified	0.1 mg	￥68,000	5
558375	MEK1 (pS298)	J114-64	Purified	0.1 mg	￥68,000	17
558376	CD45 (pS999)	J143-1270	Purified	0.1 mg	￥68,000	9

CAT. NO.	DESCRIPTION	CLONE	FORMAT	SIZE	希望小売価格	PAGE
558377	NF-κB p65 (pS536)	J144-460	Purified	0.1 mg	￥68,000	**18**
558378	IRS-1 (pY896)	K9-211	Purified	0.1 mg	￥68,000	**15**
558379	PKCα (pT497)	K14-984	Purified	0.1 mg	￥68,000	**22**
558380	MARCKS (pS152/pS156)	I84-1233	Purified	0.1 mg	￥68,000	**17**
558383	p120 Catenin (pS268)	9a.390	Purified	0.1 mg	￥68,000	**20**
558384	Akt (pY326)	K7-642	Purified	0.1 mg	￥68,000	**6**
558385	Rb (pS780)	J146-35	Purified	0.1 mg	￥68,000	**24**
558386	CrkL (pY207)	K30-391.11.30	Purified	0.1 mg	￥68,000	**11**
558387	Progesterone Receptor (pS190)	1154/F12	Purified	0.1 mg	￥68,000	**24**
558388	SLP-76 (pY113)	J80-373	Purified	0.1 mg	￥68,000	**25**
558389	Rb (pS807/pS811)	J112-906	Purified	0.1 mg	￥68,000	**24**
558390	CD117 (c-kit) (pY568/pY570)	K39-686	Purified	0.1 mg	￥68,000	**9**
558392	LAT (pY171)	I58-1169	Purified	0.1 mg	￥68,000	**16**
558393	NF-κB p65 (pS529)	K10-895.12.50	Purified	0.1 mg	￥68,000	**18**
558394	Tyk2 (pY1054/pY1055)	I114-617	Purified	0.1 mg	￥68,000	**29**
558395	PDPK1 (pS241)	J66-653.44.22	Purified	0.1 mg	￥68,000	**21**
558396	p120 Catenin (pS288)	17/catenin	Purified	0.1 mg	￥68,000	**20**
558397	TBK1 (pS172)	J133-1171	Purified	0.1 mg	￥68,000	**29**
558398	p120 Catenin (pT916)	1/Catenin	Purified	0.1 mg	￥68,000	**20**
558399	PRK1 (pT774)/ PRK2 (pT816)	I85-1151	Purified	0.1 mg	￥68,000	**23**
558400	PLK1 (pT210)	K50-483	Purified	0.1 mg	￥68,000	**23**
558401	p130^{Cas} (pY249)	J169-757.12.2	Purified	0.1 mg	￥68,000	**20**
558402	CD3ζ (CD247) (pY142)	K25-407.69	Purified	0.1 mg	￥68,000	**8**
610000	Phosphotyrosine	PY20	Purified	1 mg	￥19,000	**5**
610007	Phosphotyrosine	PY20	Biotin	50μg	￥43,000	**5**
610008	Phosphotyrosine	PY20	Biotin	150μg	￥78,000	**5**
610009	Phosphotyrosine	Polyclonal	Purified	50μg	￥31,000	**5**
610010	Phosphotyrosine	Polyclonal	Purified	150μg	￥53,000	**5**
610011	Phosphotyrosine	PY20	HRPO	50μg	￥35,000	**5**
610012	Phosphotyrosine	PY20	HRPO	150μg	￥66,000	**5**
610015	Phosphotyrosine	PY69	Agarose	500μl	￥58,000	**5**
610019	Phosphotyrosine	RC20	AKP	50μg	￥43,000	**5**
610020	Phosphotyrosine	RC20	AKP	150μg	￥78,000	**5**
610021	Phosphotyrosine	RC20	Biotin	50μg	￥43,000	**5**
610022	Phosphotyrosine	RC20	Biotin	150μg	￥78,000	**5**
610024	Phosphotyrosine	RC20	HRPO	150μg	￥66,000	**5**
610025	EGFR (Activated Form)	74	Purified	50μg	￥31,000	**11**
610026	EGFR (Activated Form)	74	Purified	150μg	￥53,000	**11**
610430	Phosphotyrosine	PY69	Purified	1 mg	￥19,000	**5**
611338	Caveolin (pY14)	56	Purified	50μg	￥31,000	**7**
611339	Caveolin (pY14)	56	Purified	150μg	￥53,000	**7**
611566	Stat6 (pY641)	18	Purified	50μg	￥31,000	**28**
611567	Stat6 (pY641)	18	Purified	150μg	￥53,000	**28**
611722	FAK (pY397)	14	Purified	50μg	￥31,000	**13**
611723	FAK (pY397)	14	Purified	150μg	￥53,000	**13**
611724	Paxillin (pY118)	30	Purified	50μg	￥31,000	**21**
611725	Paxillin (pY118)	30	Purified	150μg	￥53,000	**21**
611806	FAK (pY397)	18	Purified	50μg	￥31,000	**13**

CAT. NO.	DESCRIPTION	CLONE	FORMAT	SIZE	希望小売価格	PAGE
611807	FAK (pY397)	18	Purified	150μg	¥53,000	**13**
611818	Stat5 (pY694)	Polyclonal	Purified	50μg	¥31,000	**27**
611819	Stat5 (pY694)	Polyclonal	Purified	150μg	¥53,000	**27**
611820	Stat6 (pY641)	Polyclonal	Purified	50μg	¥31,000	**28**
611821	Stat6 (pY641)	Polyclonal	Purified	150μg	¥53,000	**28**
611964	Stat5 (pY694)	47	Purified	50μg	¥31,000	**27**
611965	Stat5 (pY694)	47	Purified	150μg	¥53,000	**27**
612132	Stat1 (pY701)	14	Purified	50μg	¥31,000	**26**
612133	Stat1 (pY701)	14	Purified	150μg	¥53,000	**26**
612232	Stat1 (pY701)	4a	Purified	50μg	¥31,000	**26**
612233	Stat1 (pY701)	4a	Purified	150μg	¥53,000	**26**
612280	p38 MAPK (pT180/pY182)	30	Purified	50μg	¥31,000	**19**
612281	p38 MAPK (pT180/pY182)	30	Purified	150μg	¥53,000	**19**
612288	p38 MAPK (pT180/pY182)	36	Purified	50μg	¥31,000	**19**
612289	p38 MAPK (pT180/pY182)	36	Purified	150μg	¥53,000	**19**
612304	c-Cbl (pY700)	47	Purified	50μg	¥31,000	**8**
612305	c-Cbl (pY700)	47	Purified	150μg	¥53,000	**8**
612306	Cdk1/Cdc2 (pY15)	44	Purified	50μg	¥31,000	**10**
612307	Cdk1/Cdc2 (pY15)	44	Purified	150μg	¥53,000	**10**
612312	GSK-3β (pY216)	13a	Purified	50μg	¥31,000	**14**
612313	GSK-3β (pY216)	13a	Purified	150μg	¥53,000	**14**
612356	Stat3 (pY705)	4	Purified	50μg	¥31,000	**26**
612357	Stat3 (pY705)	4	Purified	150μg	¥53,000	**26**
612358	ERK1/2 (pT202/pY204)	20A	Purified	50μg	¥31,000	**12**
612359	ERK1/2 (pT202/pY204)	20A	Purified	150μg	¥53,000	**12**
612390	Lck (pY505)	4	Purified	50μg	¥31,000	**16**
612391	Lck (pY505)	4	Purified	150μg	¥53,000	**16**
612392	eNOS (pS1177)	19	Purified	50μg	¥31,000	**12**
612393	eNOS (pS1177)	19	Purified	150μg	¥53,000	**12**
612401	EGFR (Activated Form)	74	Purified	100μg	¥42,000	**11**
612464	Phospholipase C γ (pY783)	27	Purified	50μg	¥31,000	**22**
612465	Phospholipase C γ (pY783)	27	Purified	150μg	¥53,000	**22**
612476	EGFR Activation Sampler Kit			各10μg	¥67,000	**30**
612477	Stat Activation Sampler Kit			各10μg	¥67,000	**31**
612524	β-Dystroglycan (pY892)	27.1	Purified	50μg	¥31,000	**11**
612525	β-Dystroglycan (pY892)	27.1	Purified	150μg	¥53,000	**11**
612528	Integrin β3 (pY759)	7a	Purified	50μg	¥31,000	**15**
612529	Integrin β3 (pY759)	7a	Purified	150μg	¥53,000	**15**
612534	P120 Catenin (pY96)	25a	Purified	50μg	¥31,000	**20**
612535	P120 Catenin (pY96)	25a	Purified	150μg	¥53,000	**20**
612536	P120 Catenin (pY228)	21a	Purified	50μg	¥31,000	**20**
612537	P120 Catenin (pY228)	21a	Purified	150μg	¥53,000	**20**
612538	P120 Catenin (pY280)	18	Purified	50μg	¥31,000	**20**
612539	P120 Catenin (pY280)	18	Purified	150μg	¥53,000	**20**
612540	JNK/SAPK (pT183/pY185)	41	Purified	50μg	¥31,000	**16**
612541	JNK/SAPK (pT183/pY185)	41	Purified	150μg	¥53,000	**16**
612542	Stat3 (pS727)	92	Purified	50μg	¥31,000	**26**
612543	Stat3 (pS727)	92	Purified	150μg	¥53,000	**26**

CAT. NO.	DESCRIPTION	CLONE	FORMAT	SIZE	希望小売価格	PAGE
612544	MAP Kinase Activation Sampler Kit			各10μg	￥67,000	**30**
612546	Phosphoserine	19	Purified	50μg	￥31,000	**5**
612547	Phosphoserine	19	Purified	150μg	￥53,000	**5**
612548	Phosphoserine/Threonine	22a	Purified	50μg	￥31,000	**5**
612549	Phosphoserine/Threonine	22a	Purified	150μg	￥53,000	**5**
612550	PKA$_{RII\beta}$ (pS114)	47	Purified	50μg	￥31,000	**22**
612551	PKA$_{RII\beta}$ (pS114)	47	Purified	150μg	￥53,000	**22**
612552	p38 MAPK (pT180/pY182)	36	HRPO	50μg	￥35,000	**19**
612553	p38 MAPK (pT180/pY182)	36	HRPO	150μg	￥66,000	**19**
612572	PKA$_{RII\beta}$ (pS114)	24	Purified	50μg	￥31,000	**22**
612573	PKA$_{RII\beta}$ (pS114)	24	Purified	150μg	￥53,000	**22**
612574	ZAP-70 (pY319)	17a	Purified	50μg	￥31,000	**29**
612575	ZAP-70 (pY319)	17a	Purified	150μg	￥53,000	**29**
612664	eNOS (pS633)	37	Purified	50μg	￥31,000	**12**
612665	eNOS (pS633)	37	Purified	150μg	￥53,000	**12**
612668	Fyn (pY528)/c-Src (pY530)	31	Purified	50μg	￥31,000	**14**
612669	Fyn (pY528)/c-Src (pY530)	31	Purified	150μg	￥53,000	**14**
612690	p120 Catenin (pY291)	15A	Purified	50μg	￥31,000	**20**
612691	p120 Catenin (pY291)	15A	Purified	150μg	￥53,000	**20**
612692	p90 RSK1 (pS380)	20a	Purified	50μg	￥31,000	**19**
612693	p90 RSK1 (pS380)	20a	Purified	150μg	￥53,000	**19**
612698	PKCα (pT638)	35	Purified	50μg	￥31,000	**22**
612699	PKCα (pT638)	35	Purified	150μg	￥53,000	**22**
612706	eNOS (pT495)	31	Purified	50μg	￥31,000	**12**
612707	eNOS (pT495)	31	Purified	150μg	￥53,000	**12**
612734	PKCθ (pT538)	19	Purified	50μg	￥31,000	**23**
612735	PKCθ (pT538)	19	Purified	150μg	￥53,000	**23**
612736	Ras-GAP (pY460)	19A	Purified	50μg	￥31,000	**24**
612737	Ras-GAP (pY460)	19A	Purified	150μg	￥53,000	**24**
612738	Stat4 (pY693)	38	Purified	50μg	￥31,000	**27**
612739	Stat4 (pY693)	38	Purified	150μg	￥53,000	**27**

テクニカルデータシートの入手方法

本誌で紹介されている製品のテクニカルデータシートは
弊社ウェブサイトよりダウンロードすることができます。

BDのウェブサイトにアクセスします。（http:www.bd.com/jp/）

▼

研究者向けタブの「試薬・抗体」をクリックします。

▼

左のカラム「データシート検索」をクリックします。

▼

データシート検索用の画面が表示されます。

▼

空欄へ6ケタのカタログ番号（Cat.No.）を入力し、 GO＞ をクリック

▼

Tech Docsの下にあるTDS（テクニカルデータシート）をクリックします。

▼

必要な抗体の情報が、PDFファイル形式で入手できます。

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