

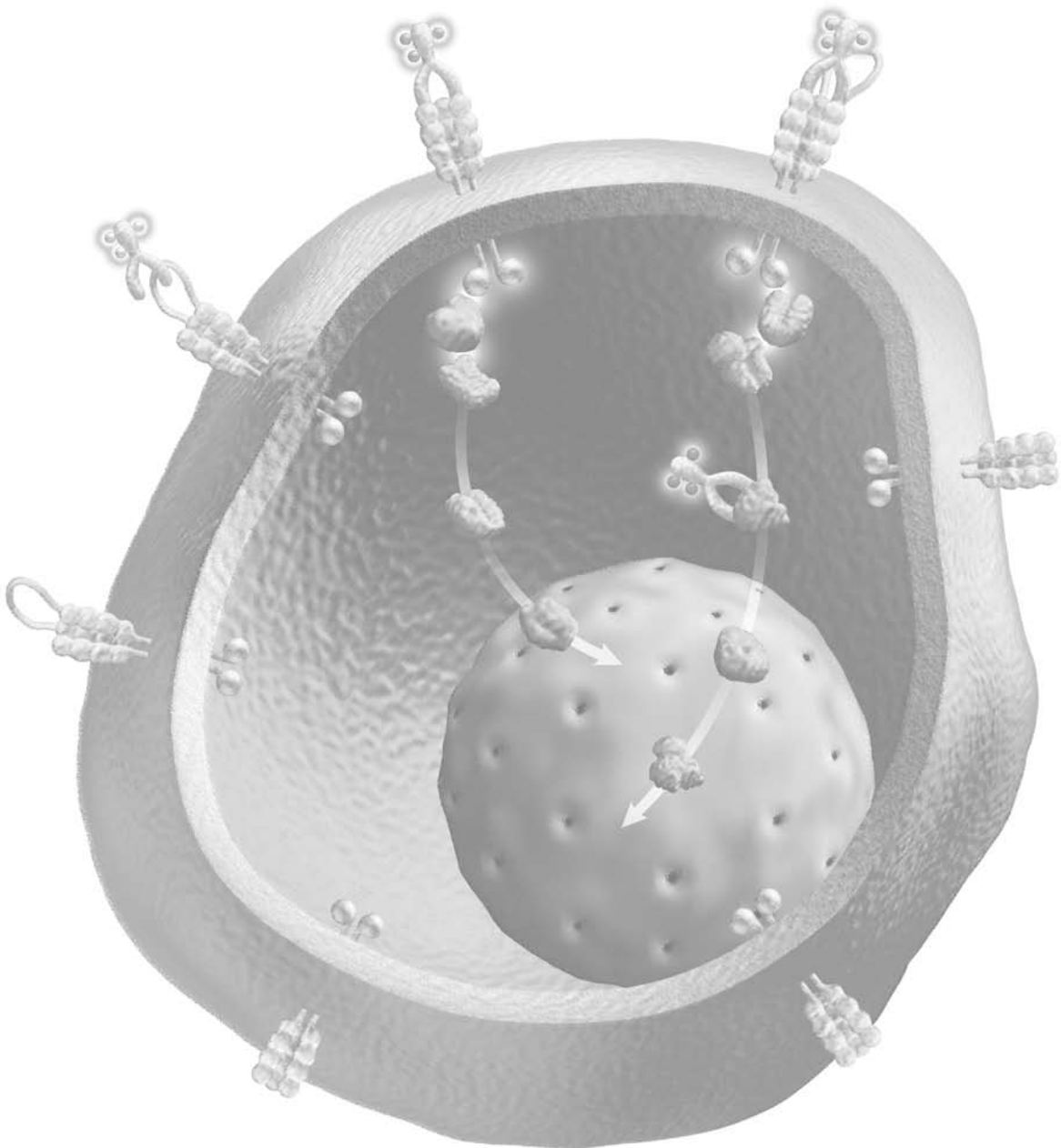
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BD Biosciences

# BD Phosflow Technology

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## Product List



## Highlights of phospho-signaling pathway analysis from BD Biosciences

The table below provides an overview of relevant markers offered by BD Biosciences for elucidating phospho-signaling pathways. Our antibody reagents are available in a variety of formats and have been tested for multiple applications.

### Adhesion Molecules

#### *Adhesion molecules*

p120 Catenin (pS268)  
p120 Catenin (pS288)  
p120 Catenin (pS879)  
p120 Catenin (pT310)  
p120 Catenin (pT916)

#### *Serine/threonine kinases*

β-Catenin (pS45)

#### *Structural proteins*

Caveolin-1 (pY14)

### AKT Signaling

#### *Adapter molecules*

IRS-1 (pY896)

#### *Anchor proteins*

Ezrin (pY353)

#### *Enzymes: Synthases*

eNOS

#### *Lipid phosphatases*

PTEN

#### *Protein translation*

S6 (pS240)  
S6 (pS244)  
S6 (pS235/236)  
4EBP1 (pT69)  
4EBP1 (pT36/pT45)

#### *Serine/threonine kinases*

AKT (pS473)  
AKT (pT308)  
Akt1 (PKBα, RAC-PK)  
PDPK1 (pS241)  
TBK1 (pS172) (T2K, NAK)

#### *Transcription factors*

NF-κB p65 (pS529)

#### *Tyrosine kinases*

FAK (pS910)

### Cell Cycle

#### *DNA binding proteins*

Histone H3 (pS28)

#### *Serine/threonine kinases*

PLK1 (pT210)

#### *Transcription regulatory proteins*

elF4e (pS209)  
Rb (a.a. 332-344)  
Rb (pS780)  
Rb (pS807/pS811)  
Rb, underphosphorylated (a.a. 514-610)

### DNA Damage Repair

p53 (pS37)

### JAK/STAT Signaling

#### *Transcription factors*

Stat1 (N-Terminus)  
Stat1 (pS727)  
Stat1 (pY701)  
Stat3  
Stat3 (pS727)  
Stat3 (pY705)  
Stat4 (pY693)  
Stat5 (pY694)  
Stat6  
Stat6 (pY641)

### Protein Tyrosine Phosphatases

SHP2 (pY542)

### Lymphocyte/Leucocyte Signaling

#### *Adapter molecules*

BLNK (pY84)  
BLNK (SLP-65, BASH, BCA)  
c-Cbl (pY700)  
c-Cbl (pY774)  
LAT (pY171)  
LAT (pY226)  
p130<sup>Cas</sup> (pY249)  
SLP-76  
SLP-76 (pY128)

#### *Adhesion molecules*

CD22 (PY822)

#### *Cell surface receptors*

CD20 (cytoplasmic) (MS4A1)

#### *Cytoskeletal associated proteins*

WIP (pS488)

#### *Enzymes: Phospholipases*

PLC-γ2 (pY759)  
PLC-γ1  
PLC-γ1 (pY783)  
PLC-γ2

#### *T cell antigen receptors*

CD247 (pY142) (CD3ζ)

#### *Transcription factors*

GATA3  
CREB (pS133)  
IRF-7 (pS477/pS479)

#### *Tyrosine kinases*

Btk  
Btk (pY551) & Itk (pY511)  
Zap-70 (pY292)  
Zap-70 (pY319)/Syk (pY352)  
Lck  
Lck (pY505)  
Pyk 2 (pY402)  
Syk (pY348)  
Syk (pY352)  
Src (pY418)

### MAPK Signaling

#### *Dual specificity kinases*

MEK1  
MEK1 (pS298)  
MEK1/2 (pS222)

#### *Serine/threonine kinases*

ERK1/2 (pT202/pY204)  
ERK2  
JNK (pT183/pY185)  
p38 MAPK (pT180/pY182)  
MEK2

### PKA Family Members

PKA RIIα (pS99)  
PKA RIIβ (pS114)

### PKC Signaling

#### *Serine/threonine kinases*

PKCα (pT497) PKCγ

### Receptor Tyrosine Kinase

#### *Receptor tyrosine kinases*

CD221 (pY1131) (IGF-1 Receptor)  
TIE2 (pY1102) (TEK, VMCM, CD202b)  
TIE2 (pY992) (TEK, VMCM, CD202b)  
CD140b (pY1009) (PDGF Receptor β)  
CD140b (pY1021) (PDGF Receptor β)  
CD140b (pY771) (PDGF Receptor β)  
CD140b (pY857) (PDGF Receptor β)  
EGF Receptor (pY1173)  
EGF Receptor (pY845)

## BD Phosflow Product List

### Serine, Threonine, Tyrosine Phosphorylation Detection

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
Phosphoserine	Hu, Rat	19/pSER	Mouse IgG <sub>1</sub>	IF, WB	RUO	Purified	50 µg	612546
				IF, WB	RUO	Purified	150 µg	612547
Phosphotyrosine	Chick, Dog, Frog, Hu, Ms, Rat	PY20	Mouse IgG <sub>2b</sub>	IC/FCM, IF, IHC, IP, WB	RUO	Purified	1 mg	610000
				IP, WB	RUO	Biotin	50 µg	610007
				IP, WB	RUO	Biotin	150 µg	610008
				WB	RUO	HRP	50 µg	610011
		PY69	Mouse IgG <sub>2a</sub>	WB	RUO	HRP	150 µg	610012
				IC/FCM	RUO	PE	50 tests	558008
		Polyclonal	Rabbit Ig	IF, IHC, IP, WB	RUO	Purified	1 mg	610430
				IP	RUO	Agarose	1.0 mL	610015
Phosphoserine/ Threonine	Hu, Rat	22A/pSER/Thr	Mouse IgG <sub>1</sub>	IF, WB	RUO	Purified	50 µg	612548
				IF, WB	RUO	Purified	150 µg	612549

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
4EBP1 (pT36/pT45)	Hu	M31-16	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	560285
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560287
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560286
4EBP1 (pT69)	Hu	M34-273	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	560288
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560290
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560289
β-Catenin (pS45)	Hu	K63-363	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	558638
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558666
Actopaxin (pS8)	Hu	J160-366	Mouse IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558374
Akt (PKBα, RAC-PK)	Dog, Dros, Hu, Ms, Rat	2/Akt	Mouse IgG <sub>2a</sub>	IF, WB	RUO	Purified	50 µg	610876
				IF, WB	RUO	Purified	150 µg	610877
				IF, WB	RUO	Purified	50 µg	610836
				IF, WB	RUO	Purified	150 µg	610837
	Dog, Hu, Ms, Rat	7/Akt	Mouse IgG <sub>1</sub>	IF, WB	RUO	Purified	50 µg	610860
				IF, WB	RUO	Purified	150 µg	610861
				IC/FCM	RUO	PE	50 tests	560049
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560048
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560050
Akt (pS472/pS473)	Hu, Ms, Rat	104A282	Mouse IgG <sub>1</sub>	IP, WB	RUO	Purified	50 µg	550747
Akt (pS473)	Hu, Ms	M89-61	Mouse IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	560397
				IC/FCM	RUO	PE	50 tests	560378
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560404
					IC/FCM	RUO	Alexa Fluor® 647	50 tests
	Hu, Ms	J177-204.20	Mouse (BALB/c) IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558368
Akt (pT308)	Hu, Ms	J1-223.371	Mouse IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558316
				IC/FCM	RUO	PE	50 tests	558275
Akt (pY326)	Ms	K7-642	Mouse (BALB/c) IgG <sub>2a</sub> , κ	WB	RUO	Purified	0.1 mg	558384
ATM (pS1981)	Hu, Ms	K88-534	Mouse IgG <sub>2b</sub> , κ	Bioimg, WB	RUO	Purified	0.1 mg	560007
BCR (pY177)	Hu, Ms	J52-309	Mouse IgG <sub>2b</sub> , κ	WB	RUO	Purified	0.1 mg	558248
BLNK (SLP-65, BASH, BCA)	Hu, Ms	2B11	Mouse IgG <sub>2a</sub> , κ	IC/FCM	RUO	PE	50 tests	558688
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558693
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558692

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>BLNK (pY84)</b>	Hu, Ms	J117-1278	Mouse (BALB/c) IgG <sub>2b</sub> κ	WB	RUO	Purified	0.1 mg	<b>558366</b>
				IC/FCM	RUO	PE	50 tests	<b>558442</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558444</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558443</b>
<b>Btk</b>	Hu	53/BTK	Mouse IgG <sub>2a</sub>	IC/FCM, IF, IHC, WB	RUO	Purified	50 µg	<b>611116</b>
				IC/FCM, IF, IHC, WB	RUO	Purified	150 µg	<b>611117</b>
				IC/FCM	RUO	PE	50 tests	<b>558527</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558528</b>
<b>Btk (pY551) &amp; Itk (pY511) Hu</b>		24a/BTK(Y551)	Mouse IgG <sub>1</sub> κ	IC/FCM, WB	RUO	Purified	0.1 mg	<b>558034</b>
				IC/FCM	RUO	PE	50 tests	<b>558129</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558130</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558134</b>
<b>Caveolin</b>	Chick, Dog, Hu, Ms, Rat	Polyclonal	Rab Ig	IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610059</b>
				IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610060</b>
<b>Caveolin-1 (pY14)</b>	Hu, Ms, Rat	56/Caveolin (pY14)	Mouse IgG <sub>1</sub> κ	IC/FCM, IHC, WB	RUO	Purified	50 µg	<b>611338</b>
				IC/FCM, IHC, WB	RUO	Purified	150 µg	<b>611339</b>
<b>Caveolin 1</b>	Chick, Hu	2234/Caveolin 1	Mouse IgG <sub>2a</sub>	IF, IP, WB	RUO	Purified	50 µg	<b>610493</b>
				IF, IP, WB	RUO	Purified	150 µg	<b>610494</b>
	Chick, Dog, Hu, Ms, Rat	2297/Caveolin 1	Mouse IgG <sub>1</sub>	IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610406</b>
				IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610407</b>
	Chick	C20B	Mouse IgG <sub>1</sub>	IF, IP, WB	RUO	Purified	50 µg	<b>610387</b>
				IF, IP, WB	RUO	Purified	150 µg	<b>610388</b>
	Dog, Hu, Ms, Rab, Rat	C060	Mouse IgM	IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610057</b>
				IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610058</b>
<b>Caveolin 2</b>	Hu, Ms, Rat	65/Caveolin 2	Mouse IgG <sub>1</sub>	IF, WB	RUO	Purified	50 µg	<b>610684</b>
				IF, WB	RUO	Purified	150 µg	<b>610685</b>
<b>Caveolin 2 (pY27)</b>	Hu	40/Caveolin 2	Mouse IgG <sub>1</sub> κ	IF, IHC(F), WB	RUO	Purified	0.1 mg	<b>558364</b>
<b>Caveolin 3</b>	Ms, Rab, Rat	26/Caveolin 3	Mouse IgG <sub>1</sub>	IHC, WB	RUO	Purified	50 µg	<b>610420</b>
				IHC, WB	RUO	Purified	150 µg	<b>610421</b>
<b>c-Cbl</b>	Chick, Dog, Hu, Ms, Rat	17/c-Cbl	Mouse IgG <sub>1</sub>	IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610441</b>
				IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610442</b>
<b>c-Cbl (pY700)</b>	Hu, Ms	47/c-Cbl	Mouse IgG <sub>1</sub>	IF, IHC(F), WB	RUO	Purified	50 µg	<b>612304</b>
				IF, IHC(F), WB	RUO	Purified	150 µg	<b>612305</b>
				IC/FCM	RUO	PE	50 tests	<b>558087</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558101</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558100</b>
<b>c-Cbl (pY774)</b>	Hu	29/c-Cbl	Mouse IgG <sub>1</sub> κ	IHC(F), IC/FCM, WB	RUO	Purified	0.1 mg	<b>558035</b>
				IC/FCM	RUO	PE	50 tests	<b>558102</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558103</b>
<b>CD3ζ (pY142) (see CD247)</b>								
<b>CD20 (cytoplasmic domain)</b>	Hu	H1 (FB1)	Mouse IgG <sub>2a</sub> κ	FCM	RUO	PerCP-Cy™5.5	50 tests	<b>558021</b>
				FCM	RUO	Alexa Fluor® 488	50 tests	<b>558056</b>
				FCM	RUO	Alexa Fluor® 647	50 tests	<b>558054</b>
<b>CD22</b>	Hu	L27	Mouse IgG <sub>1</sub> κ	FCM	RUO (GMP)	APC-H7	100 tests	<b>641396</b>
				48/CD22	Mouse IgG <sub>1</sub>	IHC, WB	RUO	Purified
IHC, WB	RUO	Purified	150 µg			<b>612463</b>		
<b>CD22 (BL-CAM)</b>	Hu	HIB22	Mouse IgG <sub>1</sub> κ	FCM	RUO	Purified	0.1 mg	<b>555423</b>
				FCM	RUO	FITC	100 tests	<b>555424</b>
				FCM	RUO	PE-Cy5	100 tests	<b>555425</b>
		S-HCL-1	Mouse IgG <sub>2b</sub> κ	FCM	RUO	FITC	100 tests	<b>347573</b>
				FCM	RUO	PE	100 tests	<b>347577</b>
				FCM	RUO	APC	100 tests	<b>340933</b>
<b>CD22 (pY822)</b>	Hu, Ms	12a/CD22	Mouse IgG <sub>1</sub> κ	IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>560075</b>
				IC/FCM	RUO	PE	50 tests	<b>560076</b>

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>CD45 (pS999)</b> (Leukocyte Common Antigen, Ly-5)	Hu	J143-1270	Mouse (BALB/c) IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558376
<b>CD61 (see Integrin β3)</b>								
<b>CD117 (pY568/pY570) (c-kit)</b>	Hu	K39-686	Mouse IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558390
<b>CD140b (pY771) (PDGF Receptor β)</b>	Hu, Ms	J23-618	Mouse (BALB/c) IgG <sub>1</sub> , κ	IHC(F), WB	RUO	Purified	0.1 mg	558361
	Ms	J23-1044	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	558426
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558424
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558425
<b>CD140b (pY857) (PDGF Receptor β)</b>	Hu, Ms	J24-425	Mouse (BALB/c) IgG <sub>1</sub> , κ	IHC(F), WB	RUO	Purified	0.1 mg	558360
		J24-618	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	558429
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558427
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558428
<b>CD140b (pY1009) (PDGF Receptor β)</b>	Hu, Ms	J25-650	Mouse IgG <sub>2b</sub> , κ	IC/FCM, IHC(F), WB	RUO	Purified	0.1 mg	558321
				IC/FCM	RUO	PE	50 tests	558322
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558323
<b>CD140b (pY1021) (PDGF Receptor β)</b>	Hu, Ms	J105-412	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM, IHC(F), WB	RUO	Purified	0.1 mg	558358
				IC/FCM	RUO	PE	50 tests	558417
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558419
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558418
<b>CD221 (pY950) (IGF-1 Receptor)</b>	Hu	J95-626	Mouse (BALB/c) IgG <sub>2b</sub> , κ	WB	RUO	Purified	0.1 mg	558373
<b>CD221 (pY1131) (IGF-1 Receptor)</b>	Hu	K74-218	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	Alexa Fluor® 647	50 tests	558588
<b>CD247 (pY142) (CD3z)</b>	Hu	K25-407.69	Mouse IgG <sub>2a</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558402
				IC/FCM	RUO	PE	50 tests	558448
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558486
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558489
<b>Cdk1/Cdc2</b>	Hu, Ms, Rat	1/Cdk1/Cdc2	Mouse IgG <sub>1</sub>	IF, IHC(F), IP, WB	RUO	Purified	50 µg	610037
				IF, IHC(F), IP, WB	RUO	Purified	150 µg	610038
	Hu, Ms	Polyclonal		IP, WB	RUO	Purified	0.1 mg	558900
<b>Cdk1/Cdc2 (pY15)</b>	Hu	44/Cdk1/Cdc2(pY15)	Mouse IgG <sub>1</sub>	IF, IHC, WB	RUO	Purified	50 µg	612306
				IF, IHC, WB	RUO	Purified	150 µg	612307
<b>CREB (pS133)/ATF-1(pS63)</b>	Hu	J151-21	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558359
				IC/FCM	RUO	PE	50 tests	558436
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558435
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558434
<b>CrkL (pY207)</b>	Hu	K30-391.11.30	Mouse (BALB/c) IgG <sub>2a</sub> , κ	WB	RUO	Purified	0.1 mg	558386
<b>β-Dystroglycan</b>	Hu	56/β-Dystroglycan	Mouse IgG <sub>2a</sub>	IHC, WB	RUO	Purified	50 µg	612090
				IHC, WB	RUO	Purified	150 µg	612091
<b>β-Dystroglycan (pY892)</b>	Hu, Ms	27.1/ β-Dystroglycan (pY892)	Mouse IgG <sub>1</sub>	IF, IHC, WB	RUO	Purified	50 µg	612524
				IF, IHC, WB	RUO	Purified	150 µg	612525
<b>EGF Receptor</b>	Hu, Ms	13/EGFR	Mouse IgG <sub>1</sub>	IF, IP, IHC, WB	RUO	Purified	50 µg	610016
				IF, IP, IHC, WB	RUO	Purified	150 µg	610017
				IF	RUO	FITC	50 µg	612554
	Hu	EGFR.1	Mouse IgG <sub>2b</sub> , κ	FCM, IF	RUO	Purified	0.1 mg	555996
				FCM	RUO	PE	100 tests	555997
<b>EGF Receptor (Activated Form)</b>	Hu	74/EGF Receptor	Mouse IgG <sub>1</sub>	IF, IP, IHC, WB	RUO	Purified	50 µg	610025
				IF, IP, IHC, WB	RUO	Purified	150 µg	610026
<b>EGF Receptor (pY845)</b>	Hu, Ms, Rat	12A3	Mouse IgG <sub>1</sub> , κ	ELISA, IC/FCM, IHC(F), WB	RUO	Purified	0.1 mg	558381
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558523

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>EGF Receptor (pY1173)</b>	Hu, Dog, Ms, Rat	9H2	Mouse IgG <sub>1</sub> , κ	IC/FCM, ELISA, IHC(F), IP, WB	RUO	Purified	0.1 mg	<b>558382</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558524</b>
<b>eIF4E (pS209)</b>	Hu	J77-925	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>560229</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560240</b>
<b>ELK-1 (pS383)</b>	Hu	M21-1721	Mouse (Balb/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>560412</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>560417</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560413</b>
<b>eNOS</b>	Hu, Ms	33/eNOS	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>560103</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560102</b>
<b>eNOS (pS633)</b>	Hu	37/eNOS(s633)	Mouse IgG <sub>1</sub>	WB	RUO	Purified	50 µg	<b>612664</b>
				WB	RUO	Purified	150 µg	<b>612665</b>
<b>eNOS (pT495)</b>	Dog, Hu, Ms, Rat	31/eNOS(pT495)	Mouse IgG <sub>1</sub>	IHC, WB	RUO	Purified	50 µg	<b>612706</b>
				IHC, WB	RUO	Purified	150 µg	<b>612707</b>
<b>eNOS (pS1177)</b>	Hu	19/eNOS/S1177	Mouse IgG <sub>1</sub>	FCM, IHC, WB	RUO	Purified	50 µg	<b>612392</b>
				FCM, IHC, WB	RUO	Purified	150 µg	<b>612393</b>
<b>eNOS/NOS Type III</b>	Hu, Ms, Rat	3/eNOS/NOS Type III	Mouse IgG <sub>1</sub>	IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610296</b>
				IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610297</b>
		Polyclonal	Rabbit Ig	Bioimg, IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610298</b>
				Bioimg, IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610299</b>
<b>ERK (pan ERK)</b>	Chick, Dog, Frog, Hu, Ms, Rat	16/ERK (pan ERK)	Mouse IgG <sub>2a</sub>	Bioimg, IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610123</b>
				Bioimg, IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610124</b>
<b>ERK1</b>	Hu, Ms, Chick, Dog, Frog, Hu, Ms, Rat	G262-118	Mouse IgG <sub>2b</sub>	WB	RUO	Purified	0.1 mg	<b>554100</b>
				IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610408</b>
		MK1	Mouse IgG <sub>1</sub>	IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610030</b>
				IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610031</b>
<b>ERK1/2 (pT202/pY204)</b>	Hu, Ms, Rat	20A	Mouse IgG <sub>1</sub>	IC/FCM	RUO	Pacific Blue™	50 tests	<b>560314</b>
				IC/FCM, IF, IHC, WB	RUO	Purified	50 µg	<b>612358</b>
				IC/FCM, IF, IHC, WB	RUO	Purified	150 µg	<b>612359</b>
				IC/FCM	RUO	PE	50 tests	<b>612566</b>
				IC/FCM	RUO	PE-Cy™7	50 tests	<b>560116</b>
				IC/FCM	RUO	PerCP-Cy5.5	50 tests	<b>560115</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>612592</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>612593</b>
<b>ERK2</b>	Chick, Dog, Frog, Hu, Ms, Rat	33/ERK2	Mouse IgG <sub>2b</sub>	IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610103</b>
				IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610104</b>
	Hu, Ms	G263-7	Mouse IgG <sub>1</sub> , κ	IP, WB	RUO	Purified	0.1 mg	<b>554095</b>
				IC/FCM	RUO	PE	50 tests	<b>558530</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558525</b>
<b>ERK3</b>	Chick, Dog, Hu, Ms, Rat	30/ERK3	Mouse IgM	IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558526</b>
<b>Ezrin</b>	Dog, Hu	18/Ezrin	Mouse IgG <sub>1</sub>	Bioimg, IF, IP, WB	RUO	Purified	50 µg	<b>610105</b>
				Bioimg, IF, IP, WB	RUO	Purified	150 µg	<b>610010</b>
<b>Ezrin (pT567)</b>	Hu	J37-954.281.307	Mouse (BALB/c) IgG <sub>1</sub> , κ	IF, IHC, WB	RUO	Purified	50 µg	<b>610602</b>
				IF, IHC, WB	RUO	Purified	150 µg	<b>610603</b>
<b>Ezrin (pY353)</b>	Hu	I66-386	Mouse IgG <sub>1</sub> , κ	IHC(F), WB	RUO	Purified	0.1 mg	<b>558357</b>
				IC/FCM, WB	RUO	Purified	0.1 mg	<b>558033</b>
				IC/FCM	RUO	PE	50 tests	<b>558601</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558627</b>
<b>FADD (pS194)</b>	Hu	J119-857.36	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558628</b>
				WB	RUO	Purified	0.1 mg	<b>558370</b>

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>FAK</b>	Chick, Dog, Hu, Ms, Rat	77/FAK	Mouse IgG <sub>1</sub>	Bioimg, IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610087</b>
				Bioimg, IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610088</b>
<b>FAK (pS910)</b>	Hu	K73-480	Mouse (BALB/c) IgG <sub>2b</sub> κ	IC/FCM	RUO	PE	50 tests	<b>558540</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558544</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558545</b>
<b>FAK (pY397)</b>	Hu	14/FAK(pY397)	Mouse IgG <sub>1</sub>	Bioimg, IF, IHC, WB	RUO	Purified	50 µg	<b>611722</b>
				Bioimg, IF, IHC, WB	RUO	Purified	150 µg	<b>611723</b>
		18/FAK(Y397)	Mouse IgG <sub>1</sub>	Bioimg, IF, WB	RUO	Purified	50 µg	<b>611806</b>
				Bioimg, IF, WB	RUO	Purified	150 µg	<b>611807</b>
<b>Fyn</b>	Hu, Dog, Rat	25/FYN	Mouse IgG <sub>2b</sub>	IF, IHC, WB	RUO	Purified	50 µg	<b>610163</b>
				IF, IHC, WB	RUO	Purified	150 µg	<b>610164</b>
<b>Fyn (pY528)/c-Src (pY530)</b>	Hu, Ms	31/Fyn (pY528)/c-Src (pY530)	Mouse IgG <sub>2b</sub>	IHC, WB	RUO	Purified	50 µg	<b>612668</b>
				IHC, WB	RUO	Purified	150 µg	<b>612669</b>
<b>GATA3</b>	Hu, Ms	L50-823	Mouse IgG <sub>1</sub> κ	Bioimg, IHC(F), WB	RUO	Purified	0.1 mg	<b>558686</b>
				IC/FCM	RUO	PE-Cy7	50 tests	<b>560405</b>
				Bioimg	RUO	Alexa Fluor® 488	100 tests	<b>560077</b>
				Bioimg	RUO	Alexa Fluor® 647	100 tests	<b>560078</b>
				IC/FCM	RUO	PE	50 tests	<b>560074</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>560163</b>
<b>GSK-3β</b>	Chick, Dog, Hu, Ms, Rat	7/GSK-3b	Mouse IgG <sub>1</sub>	Bioimg, IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610201</b>
				Bioimg, IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610202</b>
<b>GSK-3β (pY216)</b>	Hu, Ms, Rat	13A	Mouse IgG <sub>1</sub>	Bioimg, IHC, WB	RUO	Purified	50 µg	<b>612312</b>
				Bioimg, IHC, WB	RUO	Purified	150 µg	<b>612313</b>
<b>H2AX (pS140)</b>	Hu	N1-431	Mouse (BALB/c) IgG <sub>1</sub> κ	Bioimg, WB	RUO	Purified	0.1 mg	<b>560443</b>
				Bioimg, IC/FCM	RUO	Alexa Fluor® 488	100 tests	<b>560445</b>
				Bioimg, IC/FCM	RUO	Alexa Fluor® 555	100 tests	<b>560446</b>
				Bioimg, IC/FCM	RUO	Alexa Fluor® 647	100 tests	<b>560447</b>
<b>Histone H3 (pS28)</b>	Hu, Ms, Bov, Ham, Rat, Dros	HTA28	Rat IgG <sub>2a</sub> κ	IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558217</b>
<b>IGF-1 Receptor (pY1131) (see CD221)</b>								
<b>IRAK4</b>	Hu	L29-525	Mouse IgG <sub>1</sub> κ	IC/FCM	RUO	PE	50 tests	<b>560303</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560315</b>
<b>IRF-7</b>	Hu	K40-321	Mouse IgG <sub>1</sub> κ	IC/FCM	RUO	PE	50 tests	<b>558706</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558707</b>
<b>IRF-7 (pS477/pS479)</b>	Hu	K47-671	Mouse IgG <sub>1</sub> κ	IC/FCM	RUO	PE	50 tests	<b>558621</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558630</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558629</b>
<b>IRS-1</b>	Ms, Rat	6/IRS-1	Mouse IgG <sub>1</sub>	IF, WB	RUO	Purified	50 µg	<b>611394</b>
				IF, WB	RUO	Purified	150 µg	<b>611395</b>
<b>IRS-1 (pY896)</b>	Hu	K9-211	Mouse (BALB/c) IgG <sub>2a</sub> κ	IC/FCM, WB	RUO	Purified	0.1 mg	<b>558378</b>
				IC/FCM	RUO	PE	50 tests	<b>558440</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558441</b>
<b>IκBα</b>	Hu	25/IκBa/MAD-3	Mouse IgG <sub>1</sub>	IF, IP, WB	RUO	Purified	50 µg	<b>610690</b>
				IF, IP, WB	RUO	Purified	150 µg	<b>610691</b>
		6A920	Mouse IgG <sub>1</sub>	IP, WB	RUO	Purified	50 µg	<b>551819</b>
<b>IκBα (pS32/pS36)</b>	Hu	39A1431	Mouse IgG <sub>1</sub>	IP, WB	RUO	Purified	50 µg	<b>551818</b>
<b>Integrin β3</b>	Hu	1/Integrin β3 Chain	Mouse IgG <sub>1</sub>	IF, IHC, WB	RUO	Purified	50 µg	<b>611140</b>
				IF, IHC, WB	RUO	Purified	150 µg	<b>611141</b>
<b>Integrin β3 (CD61)</b>		RUU-PL7F12	Mouse (BALB/c)	IC/FCM	RUO	PerCP	50 tests	<b>340506</b>

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>Integrin β3 (pY759)</b>	Hu, Ms, Rat	7a/Integrin	Mouse IgG <sub>1</sub>	IHC, WB	RUO	Purified	50 µg	612528
				IHC, WB	RUO	Purified	150 µg	612529
<b>IRAK4</b>	Hu	L29-525	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	560303
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560315
<b>pan-JNK/SAPK1 (p49 MAPK)</b>	Chick, Dog, Frog, Hu, Ms, Rat	37/pan-JNK/SAPK1	Mouse IgG <sub>1</sub>	IF, IHC, WB	RUO	Purified	50 µg	610627
				IF, IHC, WB	RUO	Purified	150 µg	610628
<b>JNK (pT183/pY185)</b>	Hu, Ms, Rat	41/JNK/SAPK (pT183/pY185)	Mouse IgG <sub>1</sub>	IHC, WB	RUO	Purified	50 µg	612540
				IHC, WB	RUO	Purified	150 µg	612541
<b>JNK1</b>	Hu, Rat	Polyclonal	Rab IgG	IC/FCM, IHC(F)	RUO	Purified	50 tests	558268
				IC/FCM, IHC(F)	RUO	Purified	50 tests	558268
<b>JNK1</b>	Hu	G151-333	Mouse IgG <sub>1</sub>	IP, IVK, WB	RUO	Purified	0.1 mg	554286
				IP, IVK, WB	RUO	Purified	50 µg	551196
				WB	RUO	Purified	150 µg	551197
<b>JNK1/JNK2</b>	Hu	G151-666	Mouse IgG <sub>2a</sub>	IHC, IP, WB	RUO	Purified	0.1mg	554285
<b>c-Jun (pS63)</b>	Hu	2/c-Jun(S63)	Mouse IgG <sub>1</sub>	IHC(F), WB	RUO	Purified	0.1 mg	558036
<b>Jun</b>	Chick, Dog, Hu, Ms, Rat	3/Jun	Mouse IgG <sub>2a</sub>	IF, IHC, IP, WB	RUO	Purified	50 µg	610326
				IF, IHC, IP, WB	RUO	Purified	150 µg	610327
	Hu	G56-206	Mouse IgG <sub>1</sub>	WB, GF	RUO	Purified	0.1 mg	554083
<b>LAT (pY171)</b>	Hu	I58-1169	Mouse IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558392
				IC/FCM	RUO	PE	50 tests	558487
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558519
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558518
<b>LAT (pY226)</b>	Hu	J96-1238.58.93	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM, IHC(F), WB	RUO	Purified	0.1 mg	558363
				IC/FCM	RUO	PE	50 tests	558433
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558430
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558432
<b>Lck</b>	Hu, Ms, Rat	28/Lck	Mouse IgG	IF, IHC, WB	RUO	Purified	50 µg	610097
				IF, IHC, WB	RUO	Purified	150 µg	610098
	Hu	MOL 171	Mouse IgG <sub>1</sub>	IC/FCM	RUO	PE	50 tests	558496
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558504
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558505
<b>Lck (pY505)</b>	Hu, Ms, Rat	4/Lck (pY505)	Mouse IgG <sub>1</sub>	IC/FCM, WB	RUO	Purified	50 µg	612390
				IC/FCM, WB	RUO	Purified	150 µg	612391
				IC/FCM	RUO	PE	50 tests	558552
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	557879
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558577
<b>MARCKS (pS152/pS156)</b>	Ms	I84-1233	Mouse (BALB/c) IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558380
<b>MEK1</b>	Chick, Dog, Frog, Hu, Ms, Rat	25/MEK1	Mouse IgG <sub>2a</sub>	IC/FCM, IF, IHC, IP, WB	RUO	Purified	50 µg	610121
				IC/FCM, IF, IHC, IP, WB	RUO	Purified	150 µg	610122
	Hu	25/MEK1	Mouse IgG <sub>2a</sub>	IC/FCM	RUO	PE	50 tests	560099
<b>MEK1 (pS298)</b>	Hu, Ms	J114-64	Mouse IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558375
				IC/FCM	RUO	PE	50 tests	560042
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560192
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560043
<b>MEK1/2 (pS222)</b>	Hu	Polyclonal	Rab IgG	IC/FCM	RUO	Purified	50 tests	558281
<b>MEK2</b>	Chick, Dog, Frog, Hu, Ms, Rat	96/MEK2	Mouse IgG <sub>2a</sub>	IC/FCM, IF, IP, WB	RUO	Purified	50 µg	610235
				IC/FCM, IF, IP, WB	RUO	Purified	150 µg	610236
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560387
				IC/FCM	RUO	PE	50 tests	560388
<b>NF-κB</b>	Dog, Frog, Hu, Rab, Rat	20/NF-κB/p65	Mouse IgG <sub>1</sub>	Bioimg, IF, WB	RUO	Purified	50 µg	610868
				Bioimg, IF, WB	RUO	Purified	150 µg	610869

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>NF-κB p65 (p5529)</b>	Hu	K10-895.12.50	Mouse (BALB/c) IgG <sub>2b</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558393
				IC/FCM	RUO	PE	50 tests	558423
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558421
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558422
				IC/FCM	RUO	PE-Cy7	50 tests	560335
<b>NF-κB p65 (p5536)</b>	Hu	J144-460	Mouse (BALB/c) IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558377
<b>NF-H, Neurofilament Protein-H</b>	Rat	RNF402	Mouse IgM	WB	RUO	Purified	50 µg	551349
<b>NF-M, Neurofilament Protein-M</b>	Rat	RNF406	Mouse IgG <sub>1</sub>	WB	RUO	Purified	50 µg	551962
<b>p38α (SAPK2α)</b>	Dog, Hu, Ms, Rat	27/p38a/SAPK2a	Mouse IgG <sub>1</sub>	IF, IHC, WB	RUO	Purified	50 µg	612168
				IF, IHC, WB	RUO	Purified	150 µg	612169
<b>p38 MAPK (pT180/pY182)</b>	Hu, Ms, Rat	30/p38 MAPK	Mouse IgG <sub>1</sub> , κ	IC/FCM, IF, IHC, WB	RUO	Purified	50 µg	612280
				IC/FCM, IF, IHC, WB	RUO	Purified	150 µg	612281
				Bioimg, IC/FCM, IF, IHC, WB	RUO	Purified	50 µg	612288
				Bioimg, IC/FCM, IF, IHC, WB	RUO	Purified	150 µg	612289
				IC/FCM	RUO	PE	50 tests	612565
	Hu	36/p38 (pT180/pY182)	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	Alexa Fluor® 488	50 tests	612594
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	612595
				IC/FCM	RUO	PE-Cy7	50 tests	560241
				IC/FCM	RUO	PerCP-Cy5.5	50 tests	560406
				IC/FCM	RUO	Pacific Blue™	50 tests	560313
<b>p53 (ack382)</b>	Hu	L82-51	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	Alexa Fluor® 647	50 tests	560231
<b>p53 (p537)</b>	Hu	J159-641.15.4	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM, WB, IHC(F)	RUO	Purified	0.1 mg	558369
		J159-641.79	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	Alexa Fluor® 647	50 tests	560280
		J159-641.79	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	Alexa Fluor® 488	50 tests	560282
<b>p53 (p546)</b>	Hu	I117-1091	Mouse (BALB/c) IgG <sub>1</sub> , κ	IHC(F), WB	RUO	Purified	0.1 mg	558245
<b>p90 Rsk</b>	Chick, Dog, Hu, Ms, Rat	78/RSK	Mouse IgG <sub>2a</sub>	IF, IHC, WB	RUO	Purified	50 µg	610225
				IF, IHC, WB	RUO	Purified	150 µg	610226
<b>p90 RSK1 (pS380)</b>	Hu	20a/p90	Mouse IgG <sub>1</sub>	WB, IHC	RUO	Purified	50 µg	612692
<b>p120 Catenin (pp120)</b>	Chick, Dog, Hu, Ms, Rat	98/pp120	Mouse IgG <sub>1</sub>	WB, IHC	RUO	Purified	150 µg	612693
				IF, IHC, IP, WB	RUO	Purified	50 µg	610133
				IF, IHC, IP, WB	RUO	Purified	150 µg	610134
				IF	RUO	FITC	50 µg	610135
				IF	RUO	FITC	150 µg	610136
				IF	RUO	TRITC	50 µg	610137
<b>p120 Catenin (pS268)</b>	Hu	9a.390	Mouse IgG <sub>2b</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558383
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558558
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558559
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558559
<b>p120 Catenin (pS288)</b>	Hu	17/Catenin	Mouse IgG <sub>2a</sub>	IC/FCM, WB	RUO	Purified	0.1 mg	558396
				IC/FCM	RUO	PE	50 tests	558567
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558562
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558561
<b>p120 Catenin (pS879)</b>	Hu	K114-1011	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	558634
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558635
<b>p120 Catenin (pT310)</b>	Dog, Hu, Monk, Ms	22/p120 (pT310)	Mouse IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558203
				IC/FCM	RUO	PE	50 tests	558596
	IC/FCM			RUO	Alexa Fluor® 488	50 tests	558667	
	IC/FCM			RUO	Alexa Fluor® 647	50 tests	558668	
<b>p120 Catenin (pT916)</b>	Hu	1/Catenin	Mouse (BALB/c) IgG <sub>2b</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558398
				IC/FCM	RUO	PE	50 tests	558637
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558669
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558670

Unless otherwise specified, all products are for Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale. All applications are either tested in-house or reported in the literature. See Technical Data Sheets for details.

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.		
<b>p120 Catenin (pY96)</b>	Hu, Ms, Rat	25a/p120 Catenin (pY96)	Mouse IgG <sub>1</sub>	IHC, WB	RUO	Purified	50 µg	612534		
				IHC, WB	RUO	Purified	150 µg	612535		
<b>p120 Catenin (pY228)</b>	Hu, Ms, Rat	21a/p120 Catenin (pY228)	Mouse IgG <sub>1</sub>	IC/FCM, IF, WB	RUO	Purified	50 µg	612536		
				IC/FCM, IF, WB	RUO	Purified	150 µg	612537		
<b>p120 Catenin (pY280)</b>	Hu, Ms, Rat	18/p120 Catenin (pY280)	Mouse IgG <sub>1</sub>	IF, IHC, WB	RUO	Purified	50 µg	612538		
				IF, IHC, WB	RUO	Purified	150 µg	612539		
<b>p120 Catenin (pY291)</b>	Hu, Ms	15A/p120 Catenin (pY291)	Mouse IgG <sub>1</sub>	IF, WB	RUO	Purified	50 µg	612690		
				IF, WB	RUO	Purified	150 µg	612691		
<b>p130<sup>Cas</sup> (pY249)</b>	Hu	J169-757.12.2	Mouse IgG <sub>2b</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558401		
				IC/FCM	RUO	PE	50 tests	558538		
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558546		
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558547		
<b>Paxillin</b>	Chick, Dog, Hu, Ms, Rat	165/Paxillin	Mouse IgG <sub>1</sub>	IF, IP, WB	RUO	Purified	50 µg	610619		
				IF, IP, WB	RUO	Purified	150 µg	610620		
	Bov, Chick, Dog, Hu, Ms, Rat	177/Paxillin	Mouse IgG <sub>1</sub>	Bioimg, IF, WB	RUO	Purified	50 µg	610568		
				Bioimg, IF, WB	RUO	Purified	150 µg	610569		
	Chick, Dog, Hu, Ms, Rat	349/Paxillin	Mouse IgG <sub>1</sub>	IF, IHC(F), IP, WB	RUO	Purified	50 µg	610051		
				IF, IHC(F), IP, WB	RUO	Purified	150 µg	610052		
				IF	RUO	FITC	50 µg	610053		
				IF	RUO	FITC	150 µg	610054		
				IF	RUO	TRITC	50 µg	610055		
<b>Paxillin (pY31)</b>	Hu	19/Paxillin (Y31)	Mouse IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558356		
<b>Paxillin (pY118)</b>	Hu, Ms	30/Paxillin (pY118)	Mouse IgG <sub>1</sub>	IHC, WB	RUO	Purified	50 µg	611724		
				IHC, WB	RUO	Purified	150 µg	611725		
<b>PDGF Receptor (see CD140b)</b>										
<b>PDPK1 (pS241) (PKB Kinase (pS241))</b>	Hu	J66-653.44.22	Mouse IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558395		
				J66-653.44.17	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	560092
						IC/FCM	RUO	Alexa Fluor® 488	50 tests	560090
						IC/FCM	RUO	Alexa Fluor® 647	50 tests	560091
<b>PKA<sub>RIB</sub></b>	Chick, Dog, Hu, Ms, Rat	45/PKA <sub>RIB</sub>	Mouse IgG <sub>1</sub>	Bioimg, IHC, WB	RUO	Purified	50 µg	610625		
				Bioimg, IHC, WB	RUO	Purified	150 µg	610626		
<b>PKA<sub>RIB</sub> (pS99)</b>	Hu	165-856.286	Mouse IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558244		
				IC/FCM	RUO	PE	50 tests	560165		
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560164		
<b>PKA<sub>RIB</sub> (pS114)</b>	Hu, Ms, Rat	24/PKA <sub>RIB</sub> (pS114)	Mouse IgG <sub>1</sub>	IC/FCM, WB	RUO	Purified	50 µg	612572		
				IC/FCM, WB	RUO	Purified	150 µg	612573		
		47/PKA	Mouse IgG <sub>1</sub> , κ	Bioimg, IC/FCM, IHC, WB	RUO	Purified	50 µg	612550		
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560204		
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560205		
<b>PKC</b>	Bov, Chick, Hu, Ms, Rab, Rat	MC5	Mouse IgG <sub>2a</sub>	WB	RUO	Purified	0.1 mg	554207		
<b>PKCα</b>	Chick, Dog, Frog, Hu, Ms, Rat	3/PKCα	Mouse IgG <sub>2b</sub> , κ	IC/FCM, IF, IHC, IP, WB	RUO	Purified	50 µg	610107		
				IC/FCM, IF, IHC, IP, WB	RUO	Purified	150 µg	610108		
	Hu	3/PKCα	Mouse IgG <sub>2b</sub> , κ	IC/FCM	RUO	Alexa Fluor® 488	50 tests	560242		
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560243		
<b>PKCα (pT497)</b>	Hu, Ms	K14-984	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558379		
				IC/FCM	RUO	PE	50 tests	560141		
	Hu				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560139	
					IC/FCM	RUO	Alexa Fluor® 647	50 tests	560140	

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>PKCα (pT638)</b>	Hu	35/PKC	Mouse IgG <sub>1</sub>	IC/FCM, IHC, WB	RUO	Purified	50 µg	<b>612698</b>
				IC/FCM, IHC, WB	RUO	Purified	150 µg	<b>612699</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560266</b>
				IC/FCM	RUO	PE	50 tests	<b>560267</b>
<b>PKCβ</b>	Chick, Hu, Ms, Rat	36/PKCβ	Mouse IgG <sub>2a</sub>	IP, WB	RUO	Purified	50 µg	<b>610127</b>
				IP, WB	RUO	Purified	150 µg	<b>610128</b>
<b>PKCδ</b>	Hu, Ms, Rat	14/PKCδ	Mouse IgG <sub>2b</sub>	IF, IHC, WB	RUO	Purified	50 µg	<b>610397</b>
				IF, IHC, WB	RUO	Purified	150 µg	<b>610398</b>
<b>PKCε</b>	Chick, Dog, Hu, Ms, Rat	21/PKCε	Mouse IgG <sub>2a</sub>	IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610085</b>
				IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610086</b>
<b>PKCη</b>	Hu, Ms	31/PKCη	Mouse IgG <sub>1</sub>	IF, WB	RUO	Purified	50 µg	<b>610814</b>
<b>PKCι</b>	Chick, Dog, Hu, Ms, Rat, Dros	23/PKCι	Mouse IgG <sub>2b</sub>	IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610175</b>
				IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610176</b>
<b>PKCλ</b>	Chick, Dog, Hu, Ms, Rat	41/PKCλ	Mouse IgG <sub>1</sub>	IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610207</b>
				IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610208</b>
<b>PKCθ</b>	Hu	27/PKCθ	Mouse IgG <sub>2a</sub> , κ	IC/FCM, IF, IP, IHC, WB	RUO	Purified	50 µg	<b>610089</b>
				IC/FCM, IF, IP, WB	RUO	Purified	150 µg	<b>610090</b>
				IC/FCM	RUO	APC	50 tests	<b>560344</b>
				IC/FCM	RUO	PE	50 tests	<b>560216</b>
<b>PKCθ (pT538)</b>	Hu	19/PKCq	Mouse IgG <sub>2a</sub>	IHC, WB	RUO	Purified	50 µg	<b>612734</b>
				IHC, WB	RUO	Purified	150 µg	<b>612735</b>
<b>PLC-γ1</b>	Chick, Dog, Hu, Ms, Rat	10/PLCgamma	Mouse IgG <sub>1</sub>	IC/FCM, IF, IHC, IP, WB	RUO	Purified	50 µg	<b>610027</b>
				IC/FCM, IF, IHC, IP, WB	RUO	Purified	150 µg	<b>610028</b>
	Hu	10/PLCgamma	Mouse IgG <sub>1</sub>	IC/FCM	RUO	PE	50 tests	<b>558575</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558566</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558565</b>
<b>PLC-γ1 (pY783)</b>	Hu, Ms, Rat	27/PLC-γ1 (pY783)	Mouse IgG <sub>1</sub>	IHC, WB	RUO	Purified	50 µg	<b>612464</b>
				IHC, WB	RUO	Purified	150 µg	<b>612465</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>557884</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>557883</b>
<b>PLC-γ2</b>	Hu, Ms	K86-1161	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>560134</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>560135</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560136</b>
<b>PLC-γ2 (pY759)</b>	Hu	K86-689.37	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>558490</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558507</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558498</b>
<b>PLK-1 (pT210)</b>	Hu	K50-483	Mouse IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	<b>558400</b>
				IC/FCM	RUO	PE	50 tests	<b>558445</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558446</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558447</b>
<b>PRK1 (pT774) / PRK2 (pT816)</b>	Hu	I85-1151	Mouse IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	<b>558399</b>
<b>Progesterone Receptor (pS190)</b>	Hu	1154/F12 (P190)	Mouse (BALB/c) IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	<b>558387</b>
<b>PTEN</b>	Hu	A2B1	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>560002</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560003</b>
<b>PyK2 (pY402)</b>	Hu	L68-1256.272	Mouse IgG <sub>2b</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>560255</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560256</b>
<b>Ras-GAP</b>	Chick, Dog, Frog, Hu, Ms, Rat	13/Ras-GAP	Mouse IgG <sub>1</sub>	IF, IHC, WB	RUO	Purified	50 µg	<b>610040</b>
				IF, IHC, WB	RUO	Purified	150 µg	<b>610041</b>
<b>Ras-GAP (pY460)</b>	Hu, Ms	19A/Ras-GAP (pY460)	Mouse IgG <sub>1</sub>	IHC, WB	RUO	Purified	50 µg	<b>612736</b>
				IHC, WB	RUO	Purified	150 µg	<b>612737</b>

Unless otherwise specified, all products are for Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale. All applications are either tested in-house or reported in the literature. See Technical Data Sheets for details.

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
Rb (a.a. 1-240)	Hu	G99-2005	Mouse IgG <sub>1</sub>	IP, WB	RUO	Purified	0.1 mg	554162
Rb (a.a. 300-380)	Hu	G3-349	Mouse IgG <sub>1</sub>	WB	RUO	Purified	0.1 mg	554140
			Mouse IgG <sub>1</sub>	IP, WB	RUO	Purified	0.1 mg	554141
Rb (a.a. 332-344)	Ms, Rat, Hu Monk, Qua, Mink	G3-245	Mouse IgG <sub>1</sub>	Bioimg, IHC, IP, WB	RUO	Purified	0.1 mg	554136
				IC/FCM	RUO	FITC Set	100 tests	556538
Rb (a.a. 443-622)	Hu	XZ55	Mouse IgG <sub>1</sub>	WB	RUO	Purified	0.1 mg	554144
Rb (a.a. 444-535)	Hu	XZ91	Mouse IgG <sub>2a</sub>	IP, WB	RUO	Purified	0.1 mg	554145
Rb (a.a. 622-665)	Chick, Hu, Ms	XZ133	Mouse IgG <sub>1</sub>	IP	RUO	Purified	0.1 mg	554146
Rb, underphosphorylated (a.a. 514-610)	Hu, Ms	G99-549	Mouse IgG <sub>1</sub>	IC/FCM, IP, WB	RUO	Purified	0.1 mg	554164
				IC/FCM	RUO	FITC Set	100 tests	550501
				IC/FCM	RUO	PE Set	100 tests	550502
Rb (pS780)	Hu	J146-35	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM, IHC(F), WB	RUO	Purified	0.1 mg	558385
				IC/FCM	RUO	PE	50 tests	558548
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558554
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558555
Rb (pS807/pS811)	Hu	J112-906	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558389
				IC/FCM	RUO	PE	50 tests	558549
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558589
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558590
S6 (pS235/pS236)	Hu	N7-548	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	560433
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560434
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560435
S6 (pS240)	Hu	N4-41	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	560430
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560431
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560432
S6 (pS244)	Hu, Ms	N5-676	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	560462
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560465
SHP2 (pY542)	Hu, Ms	L99-921	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	560389
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560390
SLP-76	Hu	H3/SLP-76	Mouse (BALB/c) IgG <sub>2a</sub> , κ	IC/FCM	RUO	PE	50 tests	560058
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560056
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560057
SLP-76 (pY113)	Hu	J80-373	Mouse (BALB/c) IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558388
SLP-76 (pY128)	Hu	J141-668.36.58	Mouse IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	558367
				IC/FCM	RUO	PE	50 tests	558437
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558439
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558438
SLP-76 (pY145)	Hu	J81-1214.48	Mouse IgG <sub>1</sub> , κ	IHC(F), WB	RUO	Purified	0.1 mg	558362
Src (pY418)	Hu	K98-37	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	560094
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560095
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560096
Stat1 (C-terminus)	Chick, Dog, Hu, Ms, Rat	42/Stat1 (C-terminus)	Mouse IgG <sub>2b</sub>	IF, IP, IHC, WB	RUO	Purified	50 µg	610185
				IF, IP, IHC, WB	RUO	Purified	150 µg	610186
Stat1 (N-terminus)	Chick, Dog, Frog, Hu, Ms, Rat	1/Stat1	Mouse IgG <sub>1</sub>	IC/FCM, IF, IHC, IP, WB	RUO	Purified	50 µg	610115
				IC/FCM, IF, IHC, IP, WB	RUO	Purified	150 µg	610116
				IC/FCM	RUO	PE	50 tests	558537
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558560
	Chick, Dog, Frog, Hu, Ms, Rat	Polyclonal	Rabbit Ig	IF, IP, WB	RUO	Purified	50 µg	610119
				IF, IP, WB	RUO	Purified	150 µg	610120

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
Stat1 (pY701)	Hu, Ms	4a/Stat1 (pY701)	Mouse IgG <sub>2a</sub>	IC/FCM, IF, IHC, IP, WB	RUO	Purified	50 µg	612232
				IC/FCM, IF, IHC, IP, WB	RUO	Purified	150 µg	612233
				IC/FCM	RUO	PE	50 tests	612564
				IC/FCM	RUO	PerCP-Cy5.5	50 tests	560113
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	612596
	Hu, Ms	14/P-STAT1	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	Alexa Fluor® 647	50 tests	612597
				IC/FCM, IF, IP, WB	RUO	Purified	50 µg	612132
				IC/FCM, IF, IP, WB	RUO	Purified	150 µg	612133
				IC/FCM	RUO	Pacific Blue™	50 tests	560310
Stat1 (pS727)	Hu	K51-856	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	560069
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	560191
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	560190
Stat2 (pY690)	Hu	7a/Stat2 (pY690)	Mouse IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	558095
Stat3	Chick, Dog, Frog, Hu, Ms, Rat	84/Stat3	Mouse IgG <sub>1</sub>	IHC, IP, WB	RUO	Purified	50 µg	610189
				IHC, IP, WB	RUO	Purified	150 µg	610190
	Hu	M59-50	Mouse IgG <sub>1</sub> , λ	IC/FCM	RUO	PE	50 tests	560391
Stat3 (pY705)	Hu, Ms	4/P-STAT3	Mouse IgG <sub>2a</sub> , κ	IC/FCM	RUO	APC	50 tests	560392
				IC/FCM, IHC, WB	RUO	Purified	50 µg	612356
				IC/FCM, IHC, WB	RUO	Purified	150 µg	612357
				IC/FCM	RUO	PE	50 tests	612569
				IC/FCM	RUO	PerCP-Cy5.5	50 tests	560114
Stat3 (pS727)	Hu, Ms, Rat	49/p-Stat3	Mouse IgG <sub>1</sub>	IC/FCM	RUO	Alexa Fluor® 488	50 tests	557814
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	557815
				IC/FCM	RUO	Pacific Blue™	50 tests	560312
				IC/FCM, IF, IHC, WB	RUO	Purified	50 µg	612542
				IF, IHC, WB	RUO	Purified	150 µg	612543
				IC/FCM	RUO	PE	50 tests	558557
Stat4	Ms, Rat	8/Stat4	Mouse IgG <sub>1</sub>	IC/FCM	RUO	Alexa Fluor® 488	50 tests	558085
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558099
				IHC, WB	RUO	Purified	50 µg	610926
				IHC, WB	RUO	Purified	50 µg	610926
Stat4 (pY693)	Hu, Ms	38/Stat4	Mouse IgG <sub>2b</sub> , κ	IC/FCM, IHC, WB	RUO	Purified	50 µg	612738
				IC/FCM, IHC, WB	RUO	Purified	150 µg	612739
				IC/FCM	RUO	PE	50 tests	558249
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558136
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558137
Stat5	Dog, Hu, Ms, Rat	89/Stat5	Mouse IgG <sub>2b</sub>	IF, IHC, WB	RUO	Purified	50 µg	610191
				IF, IHC, WB	RUO	Purified	150 µg	610192
Stat5A	Dog, Hu, Ms, Rat	51/Stat5A	Mouse IgG <sub>1</sub>	IF, WB	RUO	Purified	50 µg	611834
				IF, WB	RUO	Purified	150 µg	611835
				IP, WB	RUO	Purified	50 µg	556516
Stat5B	Hu, Ms, Rat	Polyclonal	Rabbit Ig	IP, WB	RUO	Purified	50 µg	556517
Stat5 (pY694)	Hu	47/Stat5 (pY694)	Mouse IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	50 µg	611964
				IC/FCM, WB	RUO	Purified	150 µg	611965
				IC/FCM	RUO	Pacific Blue™	50 tests	560311
				IC/FCM	RUO	PE	50 tests	612567
				IC/FCM	RUO	PE-Cy7	50 tests	560117
				IC/FCM	RUO	PerCP-Cy5.5	50 tests	560118
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	612598
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	612599
				Polyclonal	Rabbit Ig	IF, WB	RUO	Purified
	IF, WB	RUO	Purified	150 µg	611819			

## BD Phosflow Product List (continued)

### BD™ Phosflow and Unconjugated Phospho-Specific Antibodies (continued)

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>Stat6</b>	Hu, Ms, Rat	23/Stat6	Mouse IgG <sub>1</sub>	IC/FCM, IF, IHC, WB	RUO	Purified	50 µg	<b>611290</b>
				IC/FCM, IF, IHC, WB	RUO	Purified	150 µg	<b>611291</b>
				IC/FCM	RUO	PE	50 tests	<b>560001</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560000</b>
<b>Stat6 (pY641)</b>	Hu	18/Stat6 (pY641)	Mouse IgG <sub>2a</sub>	IC/FCM, IF, IHC, WB	RUO	Purified	50 µg	<b>611566</b>
				IC/FCM, IF, IHC, WB	RUO	Purified	150 µg	<b>611567</b>
				IC/FCM	RUO	PE	50 tests	<b>612701</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>612600</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>612601</b>
	Ms	J71-773.58.11	Mouse IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	<b>558241</b>
				IC/FCM	RUO	PE	50 tests	<b>558252</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558243</b>
	Hu	Polyclonal	Rabbit Ig	IF, WB	RUO	Purified	50 µg	<b>611820</b>
				IF, WB	RUO	Purified	150 µg	<b>611821</b>
<b>Syk (pY348)</b>	Hu	I120-722	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM, WB	RUO	Purified	50 µg	<b>558167</b>
				IC/FCM	RUO	PE	50 tests	<b>558529</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>560081</b>
<b>Syk (pY352) Pan/Phospho</b>	Hu	4D10, 17a/P-ZAP70	Mouse IgG <sub>2a</sub> , Mouse IgG <sub>1</sub>	IC/FCM	RUO	FITC, R-PE	50 tests	<b>557952</b>
<b>α-Synuclein (pY125)</b>	Hu	I57-628	Mouse IgG <sub>2b</sub> , κ	WB	RUO	Purified	0.1 mg	<b>558246</b>
<b>TBK1 (T2K, NAK)</b>	Hu	637Ig11.2	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>558696</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558697</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558698</b>
<b>TBK1 (pS172)</b>	Hu	J133-1171	Mouse IgG <sub>2b</sub> , κ	IC/FCM, WB	RUO	Purified	0.1 mg	<b>558397</b>
				IC/FCM	RUO	PE	50 tests	<b>558604</b>
		J133-587	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558602</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558603</b>
<b>TIE2 (pY992)</b>	Hu	K91-860	Mouse (BALB/c) IgG <sub>1</sub> , κ	IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560051</b>
<b>TIE2 (pY1102)</b>	Hu	K93-754	Mouse (BALB/c) IgG <sub>2a</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>560052</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>560053</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>560054</b>
<b>Tyk2 (pY1054/pY1055)</b>	Hu	I114-617	Mouse (BALB/c) IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	<b>558394</b>
<b>WIP (pS488)</b>	Hu	K32-824	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>558673</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558674</b>
<b>ZAP-70</b>	Hu	1E7.2	Mouse IgG <sub>1</sub>	IC, IC/FCM	RUO (GMP)	FITC	50 tests	<b>344931</b>
				IC, IC/FCM	RUO (GMP)	PE	50 tests	<b>344635</b>
		24a	Mouse IgG <sub>1</sub>	IF, IHC, WB	RUO	Purified	50 µg	<b>612718</b>
				IF, IHC, WB	RUO	Purified	150 µg	<b>612719</b>
		29/ZAP70 Kinase	Mouse IgG <sub>2a</sub>	IF, IHC, WB	RUO	Purified	50 µg	<b>610239</b>
				IF, IHC, WB	RUO	Purified	150 µg	<b>610240</b>
<b>ZAP-70 Kinase</b>	Hu	24a/ZAP70 Kinase	Mouse IgG <sub>1</sub>	WB	RUO	Purified	50 µg	<b>612718</b>
				WB	RUO	Purified	150 µg	<b>612719</b>
		29/ZAP70 Kinase	Mouse IgG <sub>2a</sub>	IF, IHC, IHC, WB	RUO	Purified	50 µg	<b>610239</b>
<b>ZAP-70 (pY292)</b>	Hu	J34-602	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	50 tests	<b>558510</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>558516</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>558515</b>
				IC/FCM, WB	RUO	Purified	0.1 mg	<b>558365</b>
<b>ZAP-70 (pY319) / Syk (pY352)</b>	Hu, Ms, Rat	17A/ZAP-70 (pY319) /Syk (pY352)	Mouse IgG <sub>1</sub>	IC/FCM, IHC, WB	RUO	Purified	50 µg	<b>612574</b>
				IC/FCM, IHC, WB	RUO	Purified	150 µg	<b>612575</b>
				IC/FCM	RUO	PE	50 tests	<b>557881</b>
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	<b>557818</b>
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	<b>557817</b>
<b>ZAP-70 (pY493)</b>	Hu, Ms	1a/ZAP70 (pY493)	Mouse IgG <sub>1</sub> , κ	WB	RUO	Purified	0.1 mg	<b>558247</b>

Unless otherwise specified, all products are for Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale. All applications are either tested in-house or reported in the literature. See Technical Data Sheets for details.

## BD Phosflow Product List (continued)

### BD™ Phosflow Starter Kits

DESCRIPTION	APPS	REG	SIZE	CAT. NO.
<b>BD Phosflow Starter Kit</b> contents: BD Cytotix™ Fixation Buffer (554655), BD Phosflow Perm Buffer III (558050), BD Pharmingen Stain Buffer (BSA) (554657), Two BD Phosflow Antibodies of your choice	IC/FCM	RUO	Kit	558513
<b>BD Phosflow Whole Blood Starter Kit</b> contents: BD Phosflow Lyse/Fix Buffer (558049), BD Phosflow Perm Buffer III (558050), BD Pharmingen Stain Buffer (BSA) (554657), Two BD Phosflow Antibodies of your choice	IC/FCM	RUO	Kit	558514

### Supporting Reagents

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>Donkey anti-rabbit IgG</b>	Rab	Polyclonal	Don	FCM	RUO	PE	50 tests	558416
<b>Mouse IgG<sub>1</sub> κ Isotype Control</b>		MOPC-21	Mouse IgG <sub>1</sub> κ	IC/FCM, FCM	RUO	Purified	0.1 mg	554121
				IC/FCM, FCM	RUO	Alexa Fluor® 488	50 tests	557782
				IC/FCM, FCM	RUO	Alexa Fluor® 647	50 tests	557783
<b>Mouse IgG<sub>2a</sub> κ Isotype Control</b>		MOPC-173	Mouse IgG <sub>2a</sub> κ	IC/FCM	RUO	PE	50 tests	558595
				IC/FCM	RUO	PerCP-Cy5.5	50 tests	558020
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558055
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558053
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558716
<b>Mouse IgG<sub>2b</sub> κ Isotype Control</b>		27-35	Mouse IgG <sub>2b</sub> κ	IC/FCM	RUO	Alexa Fluor® 488	50 tests	558716
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558713

### Supporting Reagents - Buffers

DESCRIPTION	APPS	REG	SIZE	CAT. NO.
<b>BD Cytotix™ Fixation Buffer</b>	IC/FCM	RUO	100 mL	554655
<b>BD Phosflow Fix Buffer I</b>	IC/FCM	RUO	250 mL	557870
<b>BD Phosflow Lyse/Fix Buffer (5X)</b>	IC/FCM	RUO	250 mL	558049
<b>BD Phosflow Perm/Wash Buffer I</b>	IC/FCM	RUO	125 mL	557885
<b>BD Phosflow Perm Buffer II</b>	IC/FCM	RUO	125 mL	558052
<b>BD Phosflow Perm Buffer III</b>	IC/FCM	RUO	125 mL	558050
<b>BD Phosflow Perm Buffer IV</b>	IC/FCM	RUO	50 mL	560746
<b>BD Pharmingen™ Stain Buffer (BSA)</b>	FCM	RUO	500 mL	554657
<b>BD Pharmingen Stain Buffer (FBS)</b>	FCM	RUO	500 mL	554656

### Supporting Reagents - BD FcBlock™ Antibody and Antibodies for T-Cell Activation

DESCRIPTION	REACT	CLONE	ISOTYPE	REG	FORMAT	SIZE	CAT. NO.
<b>CD3</b>	Hu	UCHT1	Mouse IgG <sub>1</sub> κ	RUO	NA/LE	0.5 mg	555329
<b>CD3ε (CD3 ε chain)</b>	Ms	145-2C11	Armenian Hamster IgG1, κ	RUO	NA/LE	0.5 mg	553057
<b>CD4 (L3T4)</b>	Ms	GK1.5	Rat IgG <sub>2b</sub> κ	RUO	NA/LE	0.5 mg	553726
<b>CD16/CD32 (Fcγ III/II Receptor)</b>	Ms	2.4G2	Rat IgG <sub>2b</sub> κ	RUO	Purified	0.1 mg	553141
				RUO	Purified	0.5 mg	553142
<b>CD28</b>	Hu	CD28.2	Mouse IgG <sub>1</sub> κ	RUO	NA/LE	0.5 mg	555725
	Ms	37.51	Syrian Hamster IgG <sub>2</sub> λ	RUO	NA/LE	0.5 mg	553294
<b>Goat anti-mouse Ig (multiple adsorption)</b>	Ms	Polyclonal	Goat Ig	RUO	Purified	0.5 mg	553998

## BD Phosflow Product List (continued)

### Supporting Reagents - BD Phosflow stimulation reagents

DESCRIPTION	REG	FORMAT	SIZE	CAT. NO.
Interleukin-2 (IL-2), human recombinant	RUO	Frozen	10 µg	554603
	RUO	Frozen	10,000 BRMP units	354043
	RUO	Frozen	50,000 BRMP units	356043
Interleukin-2 (IL-2), mouse recombinant	RUO	Frozen	20 µg	550069
	RUO	Frozen	10,000 BRMP units	356078
	RUO	Frozen	25,000 BRMP units	354078
Interleukin-4 (IL-4), human recombinant	RUO	Frozen	5 µg	554605
	RUO	Lyophilized	5 µg	354068
Interleukin-4 (IL-4), mouse recombinant	RUO	Frozen	10 µg	550067
Interleukin-6 (IL-6), human recombinant	RUO	Frozen	10 µg	550071
Interleukin-6 (IL-6), mouse recombinant	RUO	Frozen	5 µg	554582

### BD Antibody Sampler Kits

DESCRIPTION	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>Akt (PKB<math>\alpha</math>) Sampler Kit</b> specificities: Bad, GSK-3 $\beta$ , Insulin Receptor $\beta$ , IRS-1, p70 <sup>S6k</sup> , PI3-Kinase, PKB $\alpha$ /Akt, PKB Kinase/PDK1, PP2A Catalytic $\alpha$	IF, WB	RUO	Kit	10 µg each	611437
<b>Caveolin Sampler Kit</b> specificities: Caveolin 1, Caveolin (pY14), Caveolin 2, Caveolin 3, Flotillin-1, Flotillin-2/ESA, GPI-Phospholipase D, eNOS/iNOS Type III, nNOS/iNOS Type I	IF, WB	RUO	Kit	10 µg each	611766
<b>Cell Cycle I Sampler Kit</b> specificities: Cdk1/Cdc2, Cdk2, Cdk4, Cyclin A, Cyclin B, Cyclin D3, p19 <sup>Ink4a</sup> , p36/MAT1, PCNA, Rb, Rb2, RBBP	IF, WB	RUO	Kit	10 µg each	611423
<b>Cell Cycle II Sampler Kit</b> specificities: CDC25B, CDC27, CDC34, Cip1/WAF1, CUL-2, DNA Polymerase $\delta$ , DNA Polymerase $\epsilon$ , Ki-67, Kip1/p27, MAD2, p53Cdc	IF, WB	RUO	Kit	10 µg each	612744
<b>EGFR Activation Sampler Kit</b> specificities: Akt/PKB $\alpha$ , Akt/PKB $\alpha$ (pS472/pS473), EGF Receptor, EGF Receptor (active form), ERK1, ERK1/2 (pT202/pY204), Stat1 (N-terminus), Stat1 (pY701)	IF, WB	RUO	Kit	10 µg each	612476
<b>Focal Adhesion Sampler Kit</b> specificities: CRP1, FAK, Hic-5, MCAM, Mena, p130 <sup>Cas</sup> , Paxillin, PYK2/CAK $\beta$ , VASP	IF, WB	RUO	Kit	10 µg each	611433
<b>Integrin Sampler Kit</b> specificities: Fibronectin, Integrin $\alpha_2$ /VLA-2a, Integrin $\alpha_3$ /VLA-3a, Integrin $\alpha_5$ , Integrin $\alpha_5$ /LFA-1a, Integrin $\alpha_v$ /CD51, Integrin $\beta_1$ , Integrin $\beta_2$ , Integrin $\beta_4$	IF, WB	RUO	Kit	10 µg each	611435
<b>MAP Kinase Activation Sampler Kit</b> specificities: ERK1, ERK1/2 (pT202/pY204), pan-JNK/SAPK1, JNK (pT183/pY185), p38 $\alpha$ /SAPK2 $\alpha$ , p38 MAPK	IF, WB	RUO	Kit	10 µg each	612544
<b>MAP Kinase Sampler Kit</b> specificities: 14-3-3 $\epsilon$ , ERK (pan ERK), ERK1, ERK2, ERK3, MEK1, MEK2, MEK5, MKP2, p70 <sup>S6k</sup> , Rsk, Tpl-2	IF, WB	RUO	Kit	10 µg each	611419
<b>Non-Receptor Tyrosine Kinase Sampler Kit</b> specificities: FAK, Fyn, Hck, JAK1, Ick, Lyn, Ntk, PYK2/CAK $\beta$ , tyk2, Yes, ZAP70 Kinase	IF, WB	RUO	Kit	10 µg each	611664
<b>PKA Sampler Kit</b> specificities: AKAP79, AKAP95, AKAP149, AKAP220, AKAP-KL, MAP2B, PKAC, PKA <sub>ref</sub> , PKA <sub>rib</sub> , PKA <sub>rib</sub> , PKA <sub>rib</sub>	IF, WB	RUO	Kit	10 µg each	611420
<b>PKC Sampler Kit</b> specificities: DGK $\theta$ , PKC $\alpha$ , PKC $\beta$ , PKC $\gamma$ , PKC $\delta$ , PKC $\epsilon$ , PKC $\zeta$ , PKC $\eta$ , PKC $\theta$ , PKC $\iota$ , PKC $\lambda$ , RACK1	IF, WB	RUO	Kit	10 µg each	611421
<b>Protein Tyrosine Phosphatase Sampler Kit</b> specificities: CD45, KAP, LAR, MKP2, PTP1B, PTP1C/SHP1, PTP1D/SHP2, RPTP $\alpha$ , RPTP $\beta$ , SIRP $\alpha$ 1, VHR	IF, WB	RUO	Kit	10 µg each	611438
<b>Stat Activation Sampler Kit</b> specificities: Stat1 (C-terminus), Stat1 (pY701), Stat3, Stat3 (pY705), Stat5, Stat5 (pY694), Stat6, Stat6 (pY641)	IF, WB	RUO	Kit	10 µg each	612477
<b>Stat Sampler Kit</b> specificities: ISGF3 $\gamma$ , JAK1, Stat1 (C-terminus), Stat2, Stat3, Stat4, Stat5, Stat6, Tyk2	IF, WB	RUO	Kit	10 µg each	611422

## Antibodies to Human Cell-Surface Markers Tested for BD Phosflow Protocols

Many cell-surface antigens are sensitive to fixation/permeabilization procedures, resulting in loss of recognition by their respective antibodies. For your information, BD Biosciences has tested many antibodies conjugated to various fluorochromes under several fixation/permeabilization conditions, and the results are summarized as follows.

			Protocol I <i>Detergent method</i>	Protocol II <i>Mild alcohol method</i>	Protocol III <i>Harsh alcohol method</i>	Protocol IV <i>Detergent method</i>
Fix buffer recommended for PBMCs or cell lines:			BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)
Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:			BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)
Perm Buffer:			BD™ Phosflow Perm/Wash Buffer I (557885)	BD™ Phosflow Perm Buffer II (558052)	BD™ Phosflow Perm Buffer III (558050)	BD™ Phosflow Perm Buffer IV (560746)
Specificity	Clone	Fluorochrome				
Human CD3	SK7	APC	+	+	+	+
		APC-Cy™7	+	+	-	+
		FITC	+	+	+	+
		PE	+	+	+	+
		PE-Cy™7	+	+	+	+
		PerCP	+	+	+/-	-
	UCHT1	PerCP-Cy™5.5	+	+	+	+
		Alexa Fluor® 488	+	+	+	+
		Alexa Fluor® 647	+	+	+	+
		Alexa Fluor® 700	+	+	+/-	-
		APC	+	+	+	+
		FITC	+	+	+	+
		BD Horizon™ V450			+	+
		Pacific Blue™		+	+	+
		PE	+	+	+	+
		PE-Cy™5	+	+	+	+
	HIT3a	PE-Cy7	+	+	+	+
		APC	+	-	-	+/-
		FITC		-	-	-
	SP34	PE	+	-	-	-
PE-Cy5		+		-	-	
Human CD4	L200	PE-Cy7	+		-	-
		PerCP	+	+	+	-
		PerCP-Cy5.5	+	+	+	-
		FITC	+	+	+	-
	RPA-T4	Alexa Fluor® 488	+	+	+	-
		Alexa Fluor® 647	+	+	+	-
		Alexa Fluor® 700	+		-	-
		APC	+	+	+	+
		APC-Cy7	+	-	-	-
		FITC	+	+	+	-
		Pacific Blue™	+	+	+	-
	SK3	PE	+	+	+	+
PE-Cy5		+		+	-	
PE-Cy7		+	+	+	-	
AmCyan		-	-	-	-	
APC		+	+	+	+	
APC-Cy7		+/-	-	-	-	
FITC		+	+	+	+	
L120	PE	+	+	+	+	
	PerCP	+	+	+	-	
Human CD5	UCHT2	PerCP-Cy5.5	+	+	+	+
		PE	-	-	-	-
		APC	+	+/-	-	

**Notes:**

Blank indicates not tested

+ Good resolution between positive and negative peaks - Recommended

- Poor resolution between positive and negative peaks - Not Recommended

+/- Donor dependent. The positive and negative peaks are not separated well for some donors

## Antibodies to Human Cell-Surface Markers Tested for BD Phosflow Protocols *(continued)*

			Protocol I <i>Detergent method</i>	Protocol II <i>Mild alcohol method</i>	Protocol III <i>Harsh alcohol method</i>	Protocol IV <i>Detergent method</i>
Fix buffer recommended for PBMCs or cell lines:			BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)
Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:			BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)
Perm Buffer:			BD™ Phosflow Perm/Wash Buffer I (557885)	BD™ Phosflow Perm Buffer II (558052)	BD™ Phosflow Perm Buffer III (558050)	BD™ Phosflow Perm Buffer IV (560746)
Specificity	Clone	Fluorochrome				
Human CD8	HIT8a	APC-Cy7	+	+	-	+
		FITC	+	+	+	+
		PE	+	+	+	+
		PE-Cy5	+	+	+	+
	RPA-T8	Alexa Fluor® 488	+	+	+	+
		Alexa Fluor® 647	+	+	+	+
		Alexa Fluor® 700		+		
		APC	+	+	+	+
		APC-Cy7		+		
		FITC	+	+	+	+
		Pacific Blue™		+		
		PE	+	+	+	+
		PE-Cy5	+		+	
		PE-Cy7	+	+	-	+
	SK1	APC	+	+	+	+
		APC-Cy7	+/-		-	-
		APC-H7	+		-	-
		FITC	+	+	+	+/-
		PE	+	+	+	
		PE-Cy7	+		-	-
PerCP		+/-	+/-	-	-	
2ST8.5H7	PerCP-Cy5.5	+	+	+		
	PE	+	-	-	-	
Human CD11a/LFA-1	G43-25B	PE	+	+/-	-	
	Hi111	APC	+	-	-	
		PE	+	+/-	-	
Human CD11b	ICRF44	Alexa Fluor® 488	+	-	-	-
		APC	+	-	-	-
		APC-Cy7	-	-	-	-
		FITC	-	-	-	-
		PE	+	+/-	+/-	-
		PE-Cy5	+		-	-
Human CD11c	Bly6	PE-Cy7	+	-	-	-
		APC	+	+/-	+/-	
Human CD13	WM-15	PE	+	+/-	+/-	
		APC	+	+/-	+/-	
Human CD14	M5E2	Alexa Fluor® 488	+	+/-	-	+
		Alexa Fluor® 700				-
		APC	+	+/-	-	+
		FITC	+	+/-	-	-
		PE	+	+/-	-	+
		PE-Cy7	+	-	-	+
	MOP9	PerCP-Cy5.5	+		-	+
		PE	+	-	-	-
		APC	+	-	-	-
		PerCP	+	-	-	-
Human CD15	W6D3	APC-Cy7	+	-	-	-
		PE		+	+	
HI98	HI98	PE		+	+	
		PE		+	+	

**Notes:**

Blank indicates not tested

+ Good resolution between positive and negative peaks - Recommended

- Poor resolution between positive and negative peaks - Not Recommended

+/- Donor dependent. The positive and negative peaks are not separated well for some donors

## Antibodies to Human Cell-Surface Markers Tested for BD Phosflow Protocols *(continued)*

			Protocol I <i>Detergent method</i>	Protocol II <i>Mild alcohol method</i>	Protocol III <i>Harsh alcohol method</i>	Protocol IV <i>Detergent method</i>
Fix buffer recommended for PBMCs or cell lines:			BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)
Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:			BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)
Perm Buffer:			BD™ Phosflow Perm/Wash Buffer I (557885)	BD™ Phosflow Perm Buffer II (558052)	BD™ Phosflow Perm Buffer III (558050)	BD™ Phosflow Perm Buffer IV (560746)
Specificity	Clone	Fluorochrome				
Human CD16	3G8	Alexa Fluor® 647			-	-
		Alexa Fluor® 700			-	-
		APC-Cy7			-	-
		FITC	+/-	+/-	-	-
		Pacific Blue™			-	-
		PE	+	+/-	-	-
	PE-Cy7	+	-	-	-	
	B73.1	PE*	+	+	+	+
NKP15	FITC		-	-	-	
G022	Purified	-	-	-	-	
Human CD18	6.7	APC	+	+	+	
		PE	+	+	+	
Human CD19	HIB19	Alexa Fluor® 488	-		-	-
		Alexa Fluor® 700	-	-	-	-
		APC	+	+/-	-	-
		FITC	+	+/-	-	-
		PE	+	+/-	-	-
	PE-Cy7	-	-	-	-	
	SJ25C1	AmCyan	-		-	-
		APC	+/-	+/-	-	-
		APC-Cy7			-	-
		APC-H7	-	-	-	-
		FITC	-	-	-	-
		PE	+	+/-	+/-	+/-
		PE-Cy7	+/-	-	-	-
		PerCP	-	-	-	-
	4G7	PerCP-Cy5.5	-		-	-
FITC		+/-		-	-	
PE		-	-	-	-	
PerCP		-	-	-	-	
Human CD20	2H7	APC	+	-	-	-
		FITC	+/-	-	-	-
		PE	+	-	-	-
		PE-Cy5			-	-
	L27	APC	+		-	-
		APC-Cy7	-	-	-	-
		FITC	-	-	-	-
		PE	+	-	-	-
		PE-Cy7	+	-	-	-
		PerCP	-	-	-	-
PerCP-Cy5.5	-	-	-	-		
Human CD20 (I/C)	H1 (FB1)	Alexa Fluor® 488	+	+	+	+
		Alexa Fluor® 647	+	+	+	+
		PerCP-Cy5.5	+	+	+	+
Human CD23	M-L233	PE	+	+/-	-	
Human CD25	M-A251	Alexa Fluor® 647	+	+	+	+
		APC	+	+	-	-
		FITC	+	+	+	-
		PE	+	+	+	+
	2A3	PE-Cy7	+	+	-	-
		PE	+	+	+	+
		APC	+	+	+	+
		FITC	+	+	+	+
		PE-Cy7	+	-	-	-

**Notes:**

Blank indicates not tested

+ Good resolution between positive and negative peaks - Recommended

- Poor resolution between positive and negative peaks - Not Recommended

+/- Donor dependent. The positive and negative peaks are not separated well for some donors

## Antibodies to Human Cell-Surface Markers Tested for BD Phosflow Protocols *(continued)*

			Protocol I <i>Detergent method</i>	Protocol II <i>Mild alcohol method</i>	Protocol III <i>Harsh alcohol method</i>	Protocol IV <i>Detergent method</i>
Fix buffer recommended for PBMCs or cell lines:			BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)
Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:			BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)
Perm Buffer:			BD™ Phosflow Perm/Wash Buffer I (557885)	BD™ Phosflow Perm Buffer II (558052)	BD™ Phosflow Perm Buffer III (558050)	BD™ Phosflow Perm Buffer IV (560746)
Specificity	Clone	Fluorochrome				
Human CD27	L128	APC	+	+	+	
		FITC	+	+	+	
	M-T271	PE	+	+	+	+
Human CD28	CD28.2	APC	-	-	-	-
		FITC		-	-	
		PE		-	-	
Human CD31	WM59	PE	+	+/-	+/-	
Human CD33	WM53	PE	+	+/-	+/-	
		APC				+
	p67.6	FITC				-
		PE	+	+	+	+
		PE-Cy7				-
		PerCP-Cy5.5			-	
Human CD34	8G12	APC	+		+	+/-
		FITC	+		+	+/-
		PE	+	+	+	+
		PE-Cy7	+		+/-	-
		PerCP	+	+	+	-
			PerCP-Cy5.5	+	+	-
	581	APC	+	+/-	-	+/-
		FITC	+	+	+	+/-
		PE	+	+	+	+
	563	PE	+	+	+	+
Human CD38	HB7	FITC	-	-	-	
		PE	-	-	-	
	HIT2	APC	-	-	-	
		PE	-	-	-	
Human CD40	5C3	APC	-	-	-	
		FITC		-	-	
		PE	-	-	-	
Human CD44	515	PE		+	+	
		APC	+	+	+	+
	G44-26	PE		+	+	
Human CD45	2D1	AmCyan			+	+
		APC			+	+
		APC-Cy7	+		+	+
		APC-H7	+		+	+
		FITC			+	+
			PerCP		+	+
			PerCP-Cy5.5		+	+
	HI30	APC	+		+	+
		FITC	+		+	+
		BD Horizon V450	+		+	+
PE		+	+	+	+	
PE-Cy5		+		+	+	
		PE-Cy7	+		+	
Human CD45RA	5H9	FITC	+	+	+	+
		PE	+	+	+	
	L48	FITC	+		+	+
		APC	+	+	+	+
	HI100	FITC	+	+	+	+
		BD Horizon V450	+		+	+
		PE	+	+	+	+
		PE-Cy5	+		+	

**Notes:**

Blank indicates not tested

+ Good resolution between positive and negative peaks - Recommended

- Poor resolution between positive and negative peaks - Not Recommended

+/- Donor dependent. The positive and negative peaks are not separated well for some donors

## Antibodies to Human Cell-Surface Markers Tested for BD Phosflow Protocols *(continued)*

			Protocol I <i>Detergent method</i>	Protocol II <i>Mild alcohol method</i>	Protocol III <i>Harsh alcohol method</i>	Protocol IV <i>Detergent method</i>
Fix buffer recommended for PBMCs or cell lines:			BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)
Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:			BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)
Perm Buffer:			BD™ Phosflow Perm/Wash Buffer I (557885)	BD™ Phosflow Perm Buffer II (558052)	BD™ Phosflow Perm Buffer III (558050)	BD™ Phosflow Perm Buffer IV (560746)
Specificity	Clone	Fluorochrome				
Human CD45RO	UCHL1	APC	-		-	-
		FITC	+	+	+	+
		PE	+	+	+	+
		PE-Cy5	+		+	+
Human CD54	HA58	PE	+/-	+/-	+/-	
Human CD56	B159	Alexa Fluor® 488	-			
		Alexa Fluor® 647	-			
		APC	-			
		PE	-	-	-	-
	MY31	PE-Cy7	-	-	-	-
		PE	+/-	+/-	-	-
		APC			-	-
		FITC			-	-
NCAM16.2	PE	-	-	-	-	
	PE-Cy7			-	-	
	APC			-	-	
	FITC			-	-	
Human CD62L	DREG56	PE	-	-	-	
Human CD69	FN50	APC	-	-	-	-
		PE	+/-	-	-	-
Human CD79a (I/C)	HM47	APC	+	+	+	
		PE	+	+	+	
Human CD80	L307.4	PE		+	+	
Human CD83	HB15e	APC	+			
		PE	+	+/-	+/-	
Human CD86	2331	APC	+			
		PE	+	+	+	
		IT2.2	+	+	+	
Human CD94	HP-3D9	APC	+	+	+	
		FITC	+	+	+	
		PE	+	+	+	
Human CD95	DX2	APC	-	-	-	-
		FITC	-	-	-	-
		PE	-	-	-	-
		PE-Cy5	-	-	-	-
Human CD117	YB5.88	APC	-	-	-	-
		PE	+	+	+	+
		PerCP-Cy5.5	-	-	-	-
Human CD123	7G3	PerCP-Cy5.5	-		-	+
Human CD127	hIL-7R-M21	PE	-		-	-
Human CD138	Mi15	PE	+	+	+	
Human CD161	DX12	APC	+/-	-	-	-
		FITC	-	-	-	-
		PE	-	-	-	-
		PerCP-Cy5.5	-	-	-	-
Human CD195	2D7	APC		-	-	-
		FITC	-	-	-	-
		PE		-	-	-
		PE-Cy7	+/-	-	-	-
	3A9	APC		-	-	-
PE			-	-	-	
DC-SIGN	DCN46	PE	+	+	+	

**Notes:**

Blank indicates not tested

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+/- Donor dependent. The positive and negative peaks are not separated well for some donors

## Antibodies to Human Cell-Surface Markers Tested for BD Phosflow Protocols *(continued)*

			Protocol I <i>Detergent method</i>	Protocol II <i>Mild alcohol method</i>	Protocol III <i>Harsh alcohol method</i>	Protocol IV <i>Detergent method</i>
Fix buffer recommended for PBMCs or cell lines:			BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)
Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:			BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)
Perm Buffer:			BD™ Phosflow Perm/Wash Buffer I (557885)	BD™ Phosflow Perm Buffer II (558052)	BD™ Phosflow Perm Buffer III (558050)	BD™ Phosflow Perm Buffer IV (560746)
Specificity	Clone	Fluorochrome				
HLA-DR	G46-6	APC	+	+	+	
		FITC	+	+	+/-	
		PE	+	+	+	
	Tu36	APC	+	+	+	
		PE	+	+/-	-	
	L243	APC				+
		APC-Cy7				+
		PE				+
			PerCP-Cy5.5			+
IgD	IA6-2	PE	-	-	-	
IgM	G20-127	PE	+	+/-	+/-	

**Notes:**

Blank indicates not tested

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- Poor resolution between positive and negative peaks - Not Recommended

+/- Donor dependent. The positive and negative peaks are not separated well for some donors

## BD™ Phosflow Tested Antibodies to Human Cell-Surface Markers Product List

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
CD3	Hu	HIT3a	Mouse IgG <sub>2a</sub> , κ	FCM	RUO	FITC	100 tests	555339
				FCM	RUO	PE	100 tests	555340
				FCM	RUO	APC	100 tests	555342
				FCM	RUO	PE-Cy5	100 tests	555341
		SK7	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	PE	100 tests	347347
				FCM	RUO (GMP)	PerCP	100 tests	347344
				FCM	RUO (GMP)	PerCP-Cy5.5	50 tests	340949
				FCM	RUO (GMP)	APC	100 tests	340440
				FCM	RUO (GMP)	PE-Cy7	100 tests	557851
				FCM	RUO	APC-Cy7	100 tests	557832
		SP34	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PerCP	50 tests	552851
				FCM	RUO	PE-Cy7	50 tests	557749
		UCHT1	Mouse IgG <sub>1</sub> , κ	FCM	RUO	FITC	100 tests	555332
				FCM	RUO	PE	100 tests	555333
				FCM	RUO	APC	100 tests	555335
				FCM	RUO	PE-Cy5.5	100 tests	555334
				FCM	RUO	Alexa Fluor® 488	100 tests	557694
				FCM	RUO	Alexa Fluor® 647	100 tests	557706
FCM	RUO			Alexa Fluor® 700	0.1 mg	557943		
FCM	RUO			Pacific Blue™	0.1 mg	558117		
CD4	Hu	L200	Mouse IgG <sub>1</sub> , κ	FCM	RUO	FITC	50 tests	550628
				FCM	RUO	PE	50 tests	550630
				FCM	RUO	PerCP	50 tests	550631
				FCM	RUO	PerCP-Cy5.5	50 tests	552838
		RPA-T4	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555347
				FCM	RUO	APC	100 tests	555349
				FCM	RUO	FITC	100 tests	555346
				FCM	RUO	Alexa Fluor® 488	100 tests	557695
				FCM	RUO	Alexa Fluor® 647	100 tests	557707
				FCM	RUO	Pacific Blue™	0.1 mg	558116
		SK3	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE-Cy5	100 tests	555348
				FCM	RUO	APC-Cy7	100 tests	557871
				FCM	RUO	Alexa Fluor® 700	0.1 mg	557922
				FCM	RUO (GMP)	PerCP	100 tests	347324
				FCM	RUO (GMP)	PerCP-Cy5.5	50 tests	341654
				FCM	RUO (GMP)	PE-Cy7	100 tests	348789
				FCM	RUO (GMP)	AmCyan	100 tests	339187
				FCM	RUO (GMP)	APC	100 tests	340443
CD5	Hu	UCHT2	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555353
				FCM	RUO	APC	100 tests	555355
CD8	Hu	HIT8a	Mouse IgG <sub>1</sub> , κ	FCM	RUO	FITC	100 tests	555634
				FCM	RUO	PE	100 tests	555635
				FCM	RUO	PE-Cy5	100 tests	555636
				FCM	RUO	FITC	100 tests	555366
		RPA-T8	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555367
				FCM	RUO	APC	100 tests	555369
				FCM	RUO	PE-Cy7	100 tests	557746
				FCM	RUO	APC-Cy7	50 tests	557760
				FCM	RUO	Alexa Fluor® 488	100 tests	557696
				FCM	RUO	Alexa Fluor® 647	100 tests	557708
		SK1	Mouse IgG <sub>1</sub> , κ	FCM	RUO	Alexa Fluor® 700	0.1 mg	557945
				FCM	RUO	Pacific Blue™	0.1 mg	558207
				FCM	RUO	PE-Cy5	100 tests	555368
				FCM	IVD	PE	100 tests	340046
				FCM	RUO (GMP)	PerCP	100 tests	347314
				FCM	RUO (GMP)	PerCP-Cy5.5	50 tests	341051

Unless otherwise specified, all products are for Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale. All applications are either tested in-house or reported in the literature. See Technical Data Sheets for details.

## BD™ Phosflow Tested Antibodies to Human Cell-Surface Markers Product List *(continued)*

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.		
CD11a (Integrin αL chain, LFA-1α)	Hu	G43-25B	Mouse IgG <sub>2a</sub> , κ	FCM	RUO	PE	100 tests	555380		
		HI111	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555384		
				FCM	RUO	APC	100 tests	559875		
CD11b/Mac-1 (CR3)	Hu	ICRF44	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555388		
				FCM	RUO	APC	100 tests	550019		
				FCM	RUO	PE-Cy7	100 tests	557743		
				FCM	RUO	Alexa Fluor® 488	100 tests	557701		
CD11c (Integrin αX chain)	Hu	B-ly6	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555392		
				FCM	RUO	APC	100 tests	559877		
CD13	Hu	WM15	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555394		
CD14	Hu	M5E2	Mouse IgG <sub>2a</sub> , κ	FCM	RUO	FITC	100 tests	555397		
				FCM	RUO	PE	100 tests	555398		
				FCM	RUO	APC	100 tests	555399		
				FCM	RUO	PerCP-Cy5.5	0.1 mg	550787		
				FCM	RUO	PE-Cy7	100 tests	557742		
				FCM	RUO	Alexa Fluor® 488	100 tests	557700		
CD15	Hu	W6D3	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	558084		
				HI98	Mouse IgM, k	FCM	RUO	PE	100 tests	555402
CD16	Hu	3G8	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555407		
				FCM	RUO	FITC	100 tests	555406		
				FCM	RUO	PE-Cy7	100 tests	557744		
				FCM	RUO	Alexa Fluor® 647	100 tests	557710		
				B73.1	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	PE	100 tests	347617
				NKP15	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	FITC	100 tests	347523
CD18 (Integrin β2 chain, CR3/CR4)	Hu	6.7	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555924		
				FCM	RUO	APC	100 tests	551060		
CD19	Hu	HIB19	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555413		
				FCM	RUO	APC	100 tests	555415		
				FCM	RUO	FITC	100 tests	555412		
				FCM	RUO	Alexa Fluor® 488	100 tests	557697		
		SJ25C1	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	PE	50 tests	340364		
				FCM	RUO (GMP)	PE-Cy7	100 tests	341093		
				FCM	RUO (GMP)	PerCP-Cy5.5	50 tests	340951		
				FCM	RUO (GMP)	PerCP	50 tests	340421		
FCM	RUO (GMP)	AmCyan	100 tests	339190						
CD20	Hu	2H7	Mouse IgG <sub>2b</sub> , κ	FCM	RUO	FITC	100 tests	555622		
				FCM	RUO	PE	100 tests	555623		
				FCM	RUO	APC	100 tests	559776		
		H1 (FB1)	Mouse IgG <sub>2a</sub> , κ	FCM, IHC(F),IHC(Fr)	RUO	PerCP-Cy5.5	50 tests	558021		
				IC/FCM	RUO	Alexa Fluor® 488	50 tests	558056		
				IC/FCM	RUO	Alexa Fluor® 647	50 tests	558054		
L27	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	PE	50 tests	346595				
CD23	Hu	M-L233	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555711		
CD25 (IL-2 Receptor α chain)	Hu	M-A251	Mouse IgG <sub>1</sub> , κ	FCM	RUO	FITC	100 tests	555431		
				FCM	RUO	PE	100 tests	555432		
				FCM	RUO	APC	100 tests	555434		
CD27	Hu	L128	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	FITC	50 tests	340424		
				FCM	RUO (GMP)	PE	50 tests	340425		
				FCM	RUO (GMP)	APC	100 tests	337169		
		M-T271	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555441		

## BD™ Phosflow Tested Antibodies to Human Cell-Surface Markers Product List *(continued)*

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
CD28	Hu	CD28.2	Mouse IgG <sub>1</sub> , κ	FCM	RUO	FITC	100 tests	555728
				FCM	RUO	PE	100 tests	555729
				FCM	RUO	APC	100 tests	559770
CD31 (PECAM-1)	Hu	WM59	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555446
CD33	Hu	P67.6	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	PE	100 tests	347787
		WM53	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555450
CD34 (gp 105-120)	Hu	8G12	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	PE	100 tests	348057
				FCM	RUO (GMP)	FITC	100 tests	348053
				FCM	RUO (GMP)	APC	100 tests	340441
				FCM	RUO (GMP)	PE-Cy7	100 tests	348791
				FCM	RUO (GMP)	PerCP	50 tests	340430
				FCM	RUO (GMP)	PerCP-Cy5.5	50 tests	347203
		563	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	550761
		581	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555822
		FCM	RUO	APC	100 tests	555824		
		FCM	RUO	FITC	100 tests	555821		
CD38	Hu	HB7	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	FITC	50 tests	340927
				FCM	RUO (GMP)	PE	50 tests	342371
		HIT2	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555460
				FCM	RUO	APC	100 tests	555462
CD40	Hu	5C3	Mouse IgG <sub>1</sub> , κ	FCM	RUO	FITC	100 tests	555588
				FCM	RUO	PE	100 tests	555589
				FCM	RUO	APC	100 tests	555591
CD44 (Pgp-1, H-CAM, Ly24)	Hu	515	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	550989
		G44-26	Mouse IgG <sub>2b</sub> , κ	FCM	RUO	PE	100 tests	555479
				FCM	RUO	APC	100 tests	559942
CD45 (Leukocyte Common Antigen)	Hu	2D1	Mouse IgG <sub>1</sub> , κ	FCM	RUO	APC-H7	100 tests	560178
				FCM	RUO	PE	100 tests	555483
		HI30	Mouse IgG <sub>1</sub> , κ	FCM	RUO	FITC	100 tests	555482
				FCM	RUO	APC	100 tests	555485
				FCM	RUO	PE-Cy7	100 tests	557748
				FCM	RUO	PE-Cy5	100 tests	555484
				FCM	RUO	BD Horizon V450	120 tests	560367
				FCM	RUO	BD Horizon V450	30 tests	560368
CD45RA	Hu	5H9	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	50 tests	556627
				FCM	RUO	FITC	50 tests	556626
		L48	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	FITC	100 tests	347723
				FCM	RUO	FITC	100 tests	555488
		HI100	Mouse IgG <sub>2b</sub> , κ	FCM	RUO	PE	100 tests	555489
				FCM	RUO	APC	100 tests	550855
				FCM	RUO	PE-Cy5	100 tests	555490
				FCM	RUO	BD Horizon V450	30 tests	560363
				FCM	RUO	BD Horizon V450	120 tests	560362
				FCM	RUO	BD Horizon V450	120 tests	560362
CD45RO	Hu	UCHL1	Mouse IgG <sub>2a</sub> , κ	FCM	RUO	FITC	100 tests	555492
				FCM	RUO	PE	100 tests	555493
				FCM	RUO	APC	100 tests	559865
				FCM	RUO	PE-Cy5	100 tests	555494
CD54 (ICAM-1)	Hu	HA58	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555511

## BD™ Phosflow Tested Antibodies to Human Cell-Surface Markers Product List *(continued)*

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
CD56 (N-CAM)	Hu	B159	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555516
				FCM	RUO	PE-Cy7	100 tests	557747
				FCM	RUO	APC	100 tests	555518
				FCM	RUO	Alexa Fluor® 488	100 tests	557699
				FCM	RUO	Alexa Fluor® 647	100 tests	557711
		MY31	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	PE	100 tests	347747
		NCAM16.2	Mouse IgG <sub>2b</sub> , κ	FCM	RUO (GMP)	PE	50 tests	340363
CD69 (Very Early Activation Antigen)	Hu	FN50	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555531
				FCM	RUO	APC	100 tests	555533
CD79a (Igα, mb-1)	Hu	HM47	Mouse IgG <sub>1</sub> , κ	IC/FCM	RUO	PE	100 tests	555935
				FCM	RUO	APC	100 tests	340578
CD80 (B7-1)	Hu	L307.4	Mouse IgG <sub>1</sub> , κ	FCM	RUO (GMP)	PE	100 tests	557227
CD83	Hu	HB15e	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	556855
				FCM	RUO	APC	100 tests	551073
CD86 (B70/B7-2)	Hu	2331 (FUN-1)	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555658
				FCM	RUO	APC	100 tests	555660
		IT2.2	Mouse IgG <sub>2b</sub> , κ	FCM	RUO	PE	100 tests	555665
CD94	Hu	hIL-7R-M21	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	0.1 mg	557938
				FCM	RUO	FITC	100 tests	555888
		HP-3D9	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555889
				FCM	RUO	APC	100 tests	559876
CD138 (Syndecan-1)	Hu	MI15	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	552026
CD195 (CCR5)	Hu	2D7/CCR5	Mouse IgG <sub>2a</sub> , κ	FCM	RUO	FITC	100 tests	555992
				FCM	RUO	PE	100 tests	555993
				FCM	RUO	APC	100 tests	556903
				FCM	RUO	PE-Cy7	100 tests	557752
		3A9	Mouse IgG <sub>2a</sub> , κ	FCM	RUO	PE	100 tests	556042
				FCM	RUO	APC	100 tests	550856
CD209 (DC-SIGN)	Hu	DCN46	Mouse IgG <sub>2b</sub> , κ	FCM	RUO	PE	100 tests	551265
HLA-DR	Dog, Hu	L243 (G46-6)	Mouse IgG <sub>2a</sub> , κ	FCM	RUO	FITC	100 tests	555811
				FCM	RUO	PE	100 tests	555812
				FCM	RUO	APC	100 tests	559866
	Dog, Hu, Rab	TU36	Mouse IgG <sub>2b</sub> , κ	FCM	RUO	PE	100 tests	555561
				FCM	RUO	APC	100 tests	559868
IgD	Hu	IA6-2	Mouse IgG <sub>2a</sub> , κ	FCM	RUO	PE	100 tests	555779
IgM	Hu	G20-127	Mouse IgG <sub>1</sub> , κ	FCM	RUO	PE	100 tests	555783

## Antibodies to Mouse Cell-Surface Markers Tested for BD Phosflow Protocols

Many cell-surface antigens are sensitive to fixation/permeabilization procedures, resulting in loss of recognition by their respective antibodies. For your information, BD Biosciences has tested many antibodies conjugated to various fluorochromes under several fixation/permeabilization conditions, and the results are summarized as follows.

			Protocol I <i>Detergent method</i>	Protocol II <i>Mild alcohol method</i>	Protocol III <i>Harsh alcohol method</i>	Protocol IV <i>Detergent method</i>
Fix buffer recommended for PBMCs or cell lines:			BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)
Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:			BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)
Perm Buffer:			BD™ Phosflow Perm/Wash Buffer I (557885)	BD™ Phosflow Perm Buffer II (558052)	BD™ Phosflow Perm Buffer III (558050)	BD™ Phosflow Perm Buffer IV (560746)
Specificity	Clone	Fluorochrome				
Mouse CD3	145-2C11	Alexa Fluor® 488		+	-	-
		APC	+		-	+/-
		APC-Cy7			-	-
		PE	+	+	-	+
		PE-Cy5			-	+/-
		PerCP		+/-	-	-
	500A2	Alexa Fluor® 700			-	+/-
		Pacific Blue™			-	+
		PE		+	+	+
	17A2	Alexa Fluor® 647	+	+	+	+
		Alexa Fluor® 700			-	+/-
		APC			+	+
		FITC	+	+	+	+
		Pacific Blue™			-	+/-
		PE		+	+/-	+
PE-Cy5				+/-	+	
Mouse CD4	GK1.5	APC-Cy7			-	-
		FITC		+	+	-
		PE	+	+	+	-
	RM4-5	Alexa Fluor® 488		+	+	-
		Alexa Fluor® 647		+	+	-
		Alexa Fluor® 700			+	-
		APC			+	-
		FITC		+	-	-
		Pacific Blue™			+	-
		PE		+	+	-
		PE-Cy5			+	-
		PE-Cy7			+	-
	PerCP		+	-	-	
	H129.19	PerCP-Cy5.5		+	+	-
		FITC			+	-
PE				+/-	-	
Mouse CD8	53-6.7	PE-Cy5			-	-
		Alexa Fluor® 488		+	+	-
		Alexa Fluor® 647		+	+	-
		APC	+		+	-
		APC-Cy7			-	-
		FITC		-	-	-
		Pacific Blue™			+	-
		PE	+	+	+	-
		PE-Cy5			-	-
	H35-17.2	PerCP		+	-	-
		PerCP-Cy5.5		+	-	-
		PE			-	-
	53-5.8	FITC			-	-
		PE			-	-

Notes:  
 Blank indicates not tested  
 + Good resolution between positive and negative peaks - Recommended  
 - Poor resolution between positive and negative peaks - Not Recommended  
 +/- Donor dependent. The positive and negative peaks are not separated well for some donors

## Antibodies to Mouse Cell-Surface Markers Tested for BD Phosflow Protocols *(continued)*

			Protocol I <i>Detergent method</i>	Protocol II <i>Mild alcohol method</i>	Protocol III <i>Harsh alcohol method</i>	Protocol IV <i>Detergent method</i>
Fix buffer recommended for PBMCs or cell lines:			BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)
Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:			BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)
Perm Buffer:			BD™ Phosflow Perm/Wash Buffer I (557885)	BD™ Phosflow Perm Buffer II (558052)	BD™ Phosflow Perm Buffer III (558050)	BD™ Phosflow Perm Buffer IV (560746)
Specificity	Clone	Fluorochrome				
Mouse CD11b	M1/70	Alexa Fluor® 488		+	+	+
		Alexa Fluor® 647			+	+
		Alexa Fluor® 700			+	+
		APC			+	-
		FITC	+	+/-	+/-	+
		PE	+	+	+	+
		PE-Cy7			+	+
Mouse CD11c	HL3	Alexa Fluor® 647			+	+
		APC			+	+
		FITC			+	+
		PE	+	+	+	+
Mouse CD19	1D3	PE-Cy7			-	-
		PE	-	-	-	-
Mouse CD21/35	7G6	PerCP-Cy5.5			-	-
		FITC			-	-
Mouse CD23	B3B4	PE	+/-		-	-
		FITC	+/-		-	-
Mouse CD24	M1/69	PE	+	-	-	-
		FITC	+	-	-	-
Mouse CD25	7D4	APC			-	-
		FITC		+	+	+
		PE			+	+
	3C7	FITC			-	-
		PE		+	+	-
	PC61	APC			-	-
		APC-Cy7			-	-
		PE			-	-
		PE-Cy7			-	-
PerCP-Cy5.5			-	-		
Mouse CD27	LG.3A10	PE			+	+
Mouse CD28	37.51	PE		-	-	-
Mouse CD43	S7	PE	+		+	-
Mouse CD44	IM7	APC		+	+	-
		FITC		+	+	-
		PE		+	+	-
Mouse CD45	30F11	PE		+	+	-
		PerCP-Cy5.5	+		+	-
Mouse CD45R/B220	RA3-6B2	14.8	PE		+	+
		Alexa Fluor® 488	+	+	+	+
		Alexa Fluor® 647	+	+	+	+
		Alexa Fluor® 700			+	-
		APC	+	+	+	+
		APC-Cy7		-	-	-
		FITC	+	+	+	+
		Pacific Blue™	+	+	+	+
		PE	+	+	+	+
		PE-Cy5	+	+	+	+
		PE-Cy7	+	+	+	+
		PE-Texas Red®	+	+	+	+
		PerCP	+	+	+	-
		PerCP-Cy5.5	+	+	+	+
Mouse CD49b	DX5	FITC		-	-	-
		PE			+	+

**Notes:**

Blank indicates not tested

+ Good resolution between positive and negative peaks - Recommended

- Poor resolution between positive and negative peaks - Not Recommended

+/- Donor dependent. The positive and negative peaks are not separated well for some donors

## Antibodies to Mouse Cell-Surface Markers Tested for BD Phosflow Protocols *(continued)*

			Protocol I <i>Detergent method</i>	Protocol II <i>Mild alcohol method</i>	Protocol III <i>Harsh alcohol method</i>	Protocol IV <i>Detergent method</i>
Fix buffer recommended for PBMCs or cell lines:			BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)	BD Cytotfix™ Buffer (554655)
Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:			BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)	BD™ Phosflow Lyse/Fix Buffer (558049)
Perm Buffer:			BD™ Phosflow Perm/Wash Buffer I (557885)	BD™ Phosflow Perm Buffer II (558052)	BD™ Phosflow Perm Buffer III (558050)	BD™ Phosflow Perm Buffer IV (560746)
Specificity	Clone	Fluorochrome				
Mouse CD69	H1.2F3	FITC		–	–	
		PE		–	–	
Mouse GR-1	RB6-8C5	FITC		+	+	
		PE	+	+	+	
Mouse I-A/I-E	M5/114.15.2 2G9	PE		+	+	
		FITC		+	+	
Mouse IgD	11-26.c2a	FITC	+		–	
Mouse IgM	II/41 R6-60.2	APC	+			
		FITC	+		–	
		PerCP-Cy5.5	+		–	
Mouse Ly6C	AL-21	FITC	+	–	–	
Mouse I-A(b)	AF6-120.1	FITC	+/-	–	–	
		PE	+	–	–	
Mouse NK1.1	PK136	APC			–	+
		FITC	–	–	–	–
		PE	+	–	–	+
		PE-Cy7			–	–
		PerCP-Cy5.5			–	–
Mouse TCR	H57-597	APC	+	+	+	+
		FITC		+	+	–
		PE	+	+	+	+

**Notes:**

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+/- Donor dependent. The positive and negative peaks are not separated well for some donors

## BD™ Phosflow Tested Antibodies to Mouse Cell-Surface Markers Product List

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.				
CD3	Ms	17A2	Ar Ham IgG1, κ	FCM	RUO	PE	0.2 mg	555275				
				FCM	RUO	Alexa Fluor® 647	0.1 mg	557869				
CD3e (CD3 ε chain)	Ms	145-2C11	Ar Ham IgG1, κ	FCM	RUO	FITC	0.1 mg	553061				
				FCM	RUO	FITC	0.5 mg	553062				
				FCM*	RUO	PE	0.1 mg	553063				
				FCM*	RUO	PE	0.2 mg	553064				
				FCM	RUO	PerCP	0.1 mg	553067				
				FCM	RUO	PerCP-Cy5.5	0.1 mg	551163				
				FCM	RUO	APC	0.1 mg	553066				
				FCM	RUO	Alexa Fluor® 488	0.1 mg	557666				
		500A2	Syr Ham IgG <sub>2b</sub> , κ	FCM	RUO	PE	0.1 mg	553240				
		CD4 (L3T4)	Ms	GK1.5	Rat IgG <sub>2b</sub> , κ	FCM	RUO	FITC	0.1 mg	557307		
FCM	RUO					FITC	0.5 mg	553729				
FCM	RUO					PE	0.1 mg	557308				
FCM	RUO					PE	0.2 mg	553730				
RM4-5	Rat IgG <sub>2b</sub> , κ			FCM	RUO	FITC	0.1 mg	553046				
				FCM	RUO	FITC	0.5 mg	553047				
				FCM*	RUO	PE	0.1 mg	553048				
				FCM*	RUO	PE	0.2 mg	553049				
				FCM	RUO	PerCP	0.1 mg	553052				
				FCM	RUO	PerCP-Cy5.5	0.1 mg	550954				
				FCM	RUO	Alexa Fluor® 488	0.1 mg	557667				
				FCM	RUO	Alexa Fluor® 647	0.1 mg	557681				
				CD8a (Ly-2)	Ms	53-6.7	Rat IgG <sub>2b</sub> , κ	FCM	RUO	FITC	0.1 mg	553030
								FCM	RUO	FITC	0.5 mg	553031
FCM*	RUO	PE	0.1 mg					553032				
FCM*	RUO	PE	0.2 mg					553033				
FCM	RUO	PerCP	0.1 mg					553036				
FCM	RUO	APC	0.1 mg					553035				
FCM	RUO	PerCP-Cy5.5	0.1 mg					551162				
FCM	RUO	Alexa Fluor® 488	0.1 mg					557668				
FCM	RUO	Alexa Fluor® 647	0.1 mg					557682				
CD11b (Integrin α <sup>M</sup> chain)	Ms	M1/70	Rat IgG <sub>2b</sub> , κ	FCM	RUO	FITC	0.1 mg	557396				
				FCM	RUO	FITC	0.5 mg	553310				
				FCM	RUO	PE	0.1 mg	557397				
				FCM	RUO	PE	0.2 mg	553311				
				FCM	RUO	PerCP-Cy5.5	0.1 mg	550993				
				FCM	RUO	Alexa Fluor® 488	0.1 mg	557672				
CD11c (Integrin α <sup>x</sup> chain)	Ms	HL3	Ar Ham IgG1, λ2	FCM	RUO	PE	0.1 mg	557401				
				FCM	RUO	PE	0.2 mg	553802				
CD19	Ms	1D3	Rat IgG <sub>2b</sub> , κ	FCM*	RUO	PE	0.1 mg	557399				
				FCM*	RUO	PE	0.2 mg	553786				
				FCM	RUO	PerCP-Cy5.5	0.1 mg	551001				
CD21/CD35 (CR2/CR1)	Ms	7G6	Rat IgG <sub>2b</sub> , κ	FCM	RUO	FITC	0.5 mg	553818				
				FCM	RUO	PE	0.2 mg	552957				
CD23 (Fcε <sub>RII</sub> )	Ms	B3B4	Rat IgG <sub>2b</sub> , κ	FCM	RUO	FITC	0.5 mg	553138				
				FCM	RUO	PE	0.2 mg	553139				
CD24 (Heat Stable Antigen)	Ms	M1/69	Rat IgG <sub>2b</sub> , κ	FCM	RUO	FITC	0.5 mg	553261				
				FCM*	RUO	PE	0.1 mg	553262				

## BD™ Phosflow Tested Antibodies to Mouse Cell-Surface Markers Product List *(continued)*

DESCRIPTION	REACT	CLONE	ISOTYPE	APPS	REG	FORMAT	SIZE	CAT. NO.
<b>CD25</b> (IL-2 Receptor $\alpha$ chain, p55)	Ms	3C7	Rat IgG <sub>2b</sub> , $\kappa$	FCM*	RUO	PE	0.1 mg	553075
			Rat IgM, $\kappa$	FCM	RUO	FITC	0.1 mg	553071
		7D4	Rat IgG <sub>2b</sub> , $\kappa$	FCM	RUO	FITC	0.5 mg	553072
			Rat IgG <sub>1</sub> , $\lambda$	FCM	RUO	PE	0.2 mg	553866
				FCM	RUO	PerCP-Cy5.5	0.1 mg	551071
				FCM	RUO	APC	0.1 mg	557192
<b>CD28</b>	Ms	37.51	Syr Ham IgG <sub>2</sub> , $\lambda$ 1	FCM*	RUO	PE	0.2 mg	553297
<b>CD43 (Ly-48, Leukosialin)</b>	Ms	S7	Rat IgG <sub>2b</sub> , $\kappa$	FCM*	RUO	PE	0.2 mg	553271
<b>CD44</b> (Pgp-1, H-CAM, Ly-24)	Ms	IM7	Rat IgG <sub>2b</sub> , $\kappa$	FCM	RUO	FITC	0.5 mg	553133
				FCM	RUO	PE	0.1 mg	553134
				FCM	RUO	APC	0.1 mg	559250
				FCM	RUO	PerCP-Cy5.5	0.1 mg	550994
<b>CD45</b> (Leukocyte Common Antigen, Ly-5)	Ms	30-F11	Rat IgG <sub>2b</sub> , $\kappa$	FCM	RUO	PerCP-Cy5.5	0.1 mg	550994
<b>CD45R/B220</b>	Ms	RA3-6B2	Rat IgG <sub>2a</sub> , $\kappa$	FCM	RUO	PerCP-Cy5.5	0.1 mg	552771
				FCM	RUO	Alexa Fluor® 488	0.1 mg	557669
				FCM	RUO	Alexa Fluor® 647	0.1 mg	557683
				FCM	RUO	FITC	0.1 mg	553087
				FCM	RUO	FITC	0.5 mg	553088
	Ms, Hu	RA3-6B2	Rat IgG <sub>2a</sub> , $\kappa$	FCM	RUO	PE	0.1 mg	553089
				FCM	RUO	PE	0.2 mg	553090
				FCM	RUO	PerCP	0.1 mg	553093
				FCM	RUO	APC	0.1 mg	553092
				FCM	RUO	APC	0.1 mg	553092
<b>CD49b/Pan-NK Cells</b>	Ms	DX5	Rat IgM, $\kappa$	FCM	RUO	FITC	0.5 mg	553857
<b>CD69</b> (Very Early Activation Antigen)	Ms	H1.2F3	Ar Ham IgG1, $\lambda$ 3	FCM	RUO	FITC	0.1 mg	557392
				FCM	RUO	FITC	0.5 mg	553236
				FCM	RUO	PE	0.2 mg	553237
<b>I-A/I-E</b>	Ms	2G9	Rat IgG <sub>2a</sub> , $\kappa$	FCM	RUO	FITC	0.5 mg	553623
			Rat IgG <sub>2b</sub> , $\kappa$	FCM	RUO	PE	0.1 mg	557000
<b>I-Ab</b>	Ms	AF6-120.1	Mouse IgG <sub>2a</sub> , $\kappa$	FCM	RUO	FITC	0.5 mg	553551
				FCM	RUO	PE	0.1 mg	553552
<b>IgD</b>	Ms	11-26c.2a	Rat IgG <sub>2a</sub> , $\kappa$	FCM	RUO	FITC	0.5 mg	553439
<b>IgM</b>	Ms	II/41	Rat IgG <sub>2a</sub> , $\kappa$	FCM, IC/FCM	RUO	FITC	0.5 mg	553437
				FCM, IC/FCM	RUO	APC	0.1 mg	550676
				FCM	RUO	PerCP-Cy5.5	0.1 mg	550881
<b>Ly-6C</b>	Ms	AL-21	Rat IgM, $\kappa$	FCM	RUO	FITC	0.5 mg	553104
<b>Ly-6G and Ly-6C (Gr-1)</b>	Ms	RB6-8C5	Rat IgG <sub>2b</sub> , $\kappa$	FCM	RUO	FITC	0.1 mg	553126
				FCM	RUO	FITC	0.5 mg	553127
				FCM	RUO	PE	0.1 mg	553128
<b>NK-1.1</b> (NKR-P1B and NKR-P1C)	Ms	PK136	Mouse IgG <sub>2a</sub> , $\kappa$	FCM	RUO	FITC	0.5 mg	553164
				FCM	RUO	PE	0.1 mg	557391
				FCM	RUO	PE	0.2 mg	553165
<b>TCR <math>\beta</math> chain</b>	Ms	H57-597	Ar Ham IgG2, $\lambda$ 1	FCM, IF	RUO	FITC	0.1 mg	553170
				FCM, IF	RUO	FITC	0.5 mg	553171
				FCM*	RUO	PE	0.1 mg	553172
				FCM	RUO	APC	0.1 mg	553174

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