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 Detergent method	Protocol II Mild alcohol method	Protocol III Harsh alcohol method	Protocol IV Detergent method
Fix buffer recommended for PBMCs or cell lines:		BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	
	Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:		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				
		APC	+	+	+	+
		APC-Cy™7	+	+	-	+
		FITC	+	+	+	+
	SK7	PE	+	+	+	+
		PE-Cy™7	+	+	+	+
		PerCP	+	+	+/-	-
		PerCP-Cy™5.5	+	+	+	+
		Alexa Fluor® 488	+	+	+	+
		Alexa Fluor® 647	+	+	+	+
		Alexa Fluor® 700		+	+/-	-
		APC	+	+	+	+
Human CD3		FITC	+	+	+	+
	UCHT1	BD Horizon™ V450			+	+
		Pacific Blue™		+	+	+
		PE	+	+	+	+
		PE-Cy™5	+	+	+	+
		PE-Cy7	+	+	+	+
		APC	+ +	-	-	+/-
		FITC	+			+/-
	HIT3a	PE				
			+			
		PE-Cy5	+			
	SP34	PE-Cy7	+		=	+/-
		PerCP	+	+	+	_
		FITC	+	+	+	
		PE	+	+	+	-
	L200	PE-Cy7	+	+	+	-
		PerCP	+	+	+	-
		PerCP-Cy5.5	+	+	+	
		Alexa Fluor® 488	+	+	+	
		Alexa Fluor® 647	+	+	+	
		Alexa Fluor® 700	+		-	-
		APC	+	+	+	+
	RPA-T4	APC-Cy7	+	-	-	-
	NFA-14	FITC	+	+	+	_
Human CD4		Pacific Blue™	+	+	+	_
		PE	+	+	+	+
		PE-Cy5	+		+	-
		PE-Cy7	+	+	+	-
		AmCyan	-	-	-	-
		APC	+	+	+	+
		APC-Cy7	+/-	-	-	-
		FITC	+	+	+	+
	SK3	PE	+	+	+	+
		PE-Cy7	+	+	+	
		PerCP	+	+	+	_
		PerCP-Cy5.5	+	+	+	+
	L120	PE	_		_	
		PE	+	+	+	
Human CD5	UCHT2					

Notes:

Blank indicates not tested

			Protocol I	Protocol II	Protocol III	Protocol IV
			Detergent method	Mild alcohol method	Harsh alcohol method	Detergent method
Fix buffer recommended for PBMCs or cell lines:			BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ 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)
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				
		APC-Cy7	+	+	-	+
	HIT8a	FITC	+	+	+	+
	TITOd	PE	+	+	+	+
		PE-Cy5	+		+	+
		Alexa Fluor® 488	+	+	+	+
		Alexa Fluor® 647	+	+	+	+
		Alexa Fluor® 700		+		
		APC	+	+	+	+
	RPA-T8	APC-Cy7 FITC		+		
	KPA-18	Pacific Blue™	+	+	+	+
		PE	+	+ +	+ +	+
Human CD8		PE-Cy5	+	т	+	т
		PE-Cy5	+	+	+	+
		PE-Cy7	+	+		+
		APC	+	+	+	+
		APC-Cy7	+/-		_	-
		APC-H7	+		_	-
		FITC	+	+	+	+/-
	SK1	PE	+	+	+	
		PE-Cy7	+		-	-
		PerCP	+/-	+/-	_	-
		PerCP-Cy5.5	+	+	+	
	2ST8.5H7	PE	+	-	-	-
	G43-25B	PE	+	+/	-	
Human CD11a/LFA-1	Hi111	APC	+	-	-	
		PE	+	+/-		
		Alexa Fluor® 488	+	-		-
	ICRF44	APC	+	-		-
		APC-Cy7	-	-		-
Human CD11b		FITC	-	-	-	-
		PE	+	+/-	+/-	-
		PE-Cy5	+		-	-
		PE-Cy7	+	-	-	-
Human CD11c	BLy6	APC	+	+/-	+/-	
		PE	+	+/-	+/-	
Human CD13	WM-15	PE		+/-	+/-	
		Alexa Fluor® 488	+	+/-	-	+
		Alexa Fluor® 700				-
	M5E2	APC FITC	+	+/- +/-	-	+ _
	IVIJEZ	PE	+	+/-	-	
Human CD14		PE-Cy7	+	+/-	-	+
		PE-Cy7 PerCP-Cy5.5	+	-	-	+
		PerCP-Cy5.5	+	_	-	+ _
		APC	+ +			
	MOP9	PerCP				
		APC-Cy7	+ +	-		
	W6D3	PE	Ť	+	+	
Human CD15	HI98	PE				
	піяо	PE		+	+	l

Notes:

Blank indicates not tested

			Protocol I	Protocol II	Protocol III	Protocol IV
			Detergent method	Mild alcohol method	Harsh alcohol method	Detergent method
Fix buf	Fix buffer recommended for PBMCs or cell lines:			BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)
Fix buffer recommended for whole blood, splenocytes, bone marrows, and other sample types containing erythrocytes:			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				
		Alexa Fluor® 647			-	-
		Alexa Fluor® 700			-	-
	269	APC-Cy7	. 1		-	-
	3G8	FITC Pacific Blue™	+/-	+/-		
Human CD16		PE	+	+/-		
		PE-Cy7	+		_	
	B73.1	PE ⁺	+	+	+	+
	NKP15	FITC		-	-	-
	G022	Purified	-	-	_	_
Human (D19		АРС	+	+	+	
Human CD18	6.7	PE	+	+	+	
		Alexa Fluor® 488	-			-
		Alexa Fluor® 700	-	-	-	-
	HIB19	APC	+	+/-	-	
	11015	FITC	+	+/-		-
		PE	+	+/-	_	
		PE-Cy7	-	-	-	-
		AmCyan	-		-	-
		APC	+/-	+/-		
Human CD19		APC-Cy7 APC-H7	_	_		
	SJ25C1	FITC				
	312301	PE	+	+/-	+/-	+/-
		PE-Cy7	+/-	-	_	-
		PerCP	-		_	_
		PerCP-Cy5.5	-		-	-
	4G7	FITC	+/-		-	_
		PE	-	-	-	-
		PerCP	-	-	-	-
		APC	+	-	-	-
	2H7	FITC	+/-	-	-	-
		PE	+	-	-	-
		PE-Cy5				-
U		APC	+			-
Human CD20		APC-Cy7	-	-	-	-
	L27	FITC PE	-	-	-	-
	L27	PE-Cy7	+	-		
		PerCP	+			
		PerCP-Cy5.5				
		Alexa Fluor® 488	+	+	+	+
Human CD20 (I/C)	H1 (FB1)	Alexa Fluor® 647	+	+	+	+
/		PerCP-Cy5.5	+	+	+	+
Human CD23	M-L233	PE	+	+/-	_	
		Alexa Fluor® 647	+	+	+	+
		APC	+	+	-	-
	M-A251	FITC	+	+	+	-
		PE	+	+	+	+
Human CD25		PE-Cy7	+	+	-	-
		PE	+	+	+	+
	2A3	APC	+	+	+	+
		FITC	+	+	+	+
		PE-Cy7	+	-		_

Notes:

Blank indicates not tested

			Protocol I Detergent method	Protocol II Mild alcohol method	Protocol III Harsh alcohol method	Protocol IV Detergent method
Fix buff	er recommended	for PBMCs or cell lines:	BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ 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				
		APC	+	+	+	
Human CD27	L128	FITC	+	+	+	
		PE	+	+	+	+
	M-T271	PE	-	-	-	-
Human CD28	CD28.2	APC FITC	-	-	-	-
Human CD20	CD20.2	PE				
Human CD31	WM59	PE	+	+/-	+/-	
	WM53	PE	+	+/-	+/-	
		APC	•			+
		FITC				-
Human CD33	p67.6	PE	+	+	+	+
		PE-Cy7				-
		PerCP-Cy5.5				-
		APC	+		+	+/-
		FITC	+		+	+/
	8G12	PE	+	+	+	+
		PE-Cy7	+		+/-	-
Human CD34		PerCP	+	+	+	-
		PerCP-Cy5.5 APC	+	+	+ _	
	581	FITC	+ +	+/-	+	+/-
		PE	+	+	+	+/-
	563	PE	+	+	+	+
		FITC	-	_	-	
U	HB7	PE	-	-	_	
Human CD38	HIT2	APC	-			
	HIIZ	PE	-	-	-	
	5C3	APC	-	-	-	
Human CD40		FITC		-	-	
		PE	-	-	-	
	515	PE		+	+	
Human CD44	G44-26	APC	+	+	+	+
		PE AmCuan		+	+	
		AmCyan APC			+ +	+ +
		APC-Cy7	+		+ +	+ +
	2D1	APC-H7	+ +		+	+
		FITC	•		+	+
		PerCP			+	+
Human CD45		PerCP-Cy5.5			+	+
		APC	+		+	+
		FITC	+		+	+
	HI30	BD Horizon V450	+		+	+
		PE	+	+	+	+
		PE-Cy5	+		+	
		PE-Cy7	+		+	+
	5H9	FITC	+	+	+	+
	1.49	PE FITC	+	+	+	
	L48	APC	+		+	+
Human CD45RA		FITC	+ +	+ +	+ +	+ +
	HI100	BD Horizon V450	+ +	+	+ +	+ +
	HI100	50 HOHLOH V450	F		F	т
		PE	+	+	+	+

Notes:

Blank indicates not tested

Fix buffer recommended marrows, and other sam Specificity Classical stress of the same stress of the sam	l for whole blo	Perm Buffer: Perm Buffer: APC FITC PE APC PE APC PE APC PE APC PE Alexa Fluor® 488 Alexa Fluor® 647 APC PE PE PE APC PE PE APC PE PE	Protocol I Detergent method BD Cytofix™ Buffer (554655) BD™ Phosflow Lyse/Fix Buffer (558049) BD™ Phosflow Perm/Wash Buffer I (557885) - - + + + + + - - - - - - - - - - - -	Protocol II Mild alcohol method BD Cytofix™ Buffer (554655) BD™ Phosflow Lyse/Fix Buffer (558049) BD™ Phosflow Perm Buffer II (558052) + + + + - - - +/- - +/-	Protocol III Harsh alcohol method BD Cytofix™ Buffer (554655) BD™ Phosflow Lyse/Fix Buffer (558049) BD™ Phosflow Perm Buffer III (558050) BD™ Pho	Protocol IV Detergent method BD Cytofix™ Buffer (554655) BD™ Phosflow Lyse/Fix Buffer (558049) BD™ Phosflow Perm Buffer IV (560746) - + + + - - - - - - -
Fix buffer recommended marrows, and other sam Specificity Classical stress of the same stress of the sam	d for whole blo imple types con Clone JCHL1 4A58 3159 MY31 ACAM16.2 DREG56	od, splenocytes, bone ntaining erythrocytes: Perm Buffer: APC FITC PE PE-Cy5 PE Alexa Fluor® 488 Alexa Fluor® 488 Alexa Fluor® 647 APC PE PE-Cy7 PE APC FIC PE APC FIC PE	(554655) BD™ Phosflow Lyse/Fix Buffer (558049) BD™ Phosflow Perm/Wash Buffer I (557885) - - + + + +/- - - - - - + - - + - - + - - - + - - - + - - - + - - - - - - - - - - - - -	(554655) BD™ Phosflow Lyse/Fix Buffer (558049) BD™ Phosflow Perm Buffer II (558052) + + + - - - - - -	(554655) BD™ Phosflow Lyse/Fix Buffer (558049) BD™ Phosflow Perm Buffer III (558050) 	(554655) BD™ Phosflow Lyse/Fix Buffer (558049) BD™ Phosflow Perm Buffer IV (560746)
marrows, and other sam Specificity Classical Human CD45RO dlassical Human CD54 HA Human CD54 HA Human CD56 M Human CD69 R Human CD69 M Human CD69 HA Human CD80 HA Human CD83 HB	Clone JCHL1 IA58 3159 IVY31 IVCAM16.2 DREG56	Perm Buffer: Perm Buffer: APC FITC PE APC PE APC PE APC PE APC PE Alexa Fluor® 488 Alexa Fluor® 647 APC PE PE PE APC PE PE APC PE PE	Buffer (558049) BD™ Phosflow Perm/Wash Buffer I (557885) - + + + + - - - - - - - +/- - +/- - + - + +/- - - + - - + - - + - - - + - - - - - - - - - - - - -	Buffer (558049) BD™ Phosflow Perm Buffer II (558052) + + + - - - - - -	Buffer (558049) BD™ Phosflow Perm Buffer III (558050) - + + + + - - - - - - - - - - - - -	Buffer (558049) BD™ Phosflow Perm Buffer IV (560746) - + + + - - - - - -
Human CD45RO UC Human CD54 HA Human CD56 B1 Human CD62L DR Human CD69 FN Human CD69 IN Human CD69 L30 Human CD80 L30 Human CD83 HB	JCHL1 4A58 3159 MY31 NCAM16.2 DREG56	Fluorochrome APC FITC PE PE-Cy5 PE Alexa Fluor® 488 Alexa Fluor® 647 APC PE PE-Cy7 PE APC FITC PE FITC PE PE-Cy7	Buffer I (557885) + + + + + +/- +/	(558052) + + + 	(558050) + + + + + + +	(560746)
Human CD45RO UC Human CD54 HA Human CD56 B1 Human CD62L DR Human CD69 FN Human CD69 IN Human CD69 L30 Human CD80 L30 Human CD83 HB	JCHL1 4A58 3159 MY31 NCAM16.2 DREG56	APC FITC PE PE-Cy5 PE Alexa Fluor® 488 Alexa Fluor® 647 APC PE PE-Cy7 PE APC FITC PE PE-Cy7	+ + + - - - - - - +/-	+ +	+ + + +/-	+ + + -
Human CD45RO UC Human CD54 HA Human CD56 B1 Human CD62L DR Human CD69 FN Human CD69 IN Human CD69 L30 Human CD80 L30 Human CD83 HB	IA58 3159 MY31 NCAM16.2 DREG56	FITC PE PE-Cy5 PE Alexa Fluor® 488 Alexa Fluor® 647 APC PE PE-Cy7 PE FITC PE PE-Cy7 PE FITC PE PE-Cy7	+ + + - - - - - - +/-	+ +	+ + + +/-	+ + + -
Human CD54 HA Human CD54 HA Human CD56 M1 Human CD62L DR Human CD69 FN Human CD69 IN Human CD80 L3 Human CD83 HB	IA58 3159 MY31 NCAM16.2 DREG56	PE PE-Cy5 PE Alexa Fluor® 488 Alexa Fluor® 647 APC PE PC-Cy7 PE APC FITC PE PE-Cy7 PE APC	+ + - - - - - - +/-	+ +	+ + +/-	+ +
Human CD54 HA Human CD56 HI Human CD56 IN Human CD62L DR Human CD69 FN Human CD69 IN Human CD69 IN Human CD80 IN Human CD80 IN HUMAN CD83 IN H	IA58 3159 MY31 NCAM16.2 DREG56	PE-Cy5 PE Alexa Fluor® 488 Alexa Fluor® 647 APC PE PE-Cy7 PE APC FITC PE PE-Cy7	+ +/- - - - - - +/-	+/- - -	+ +/- -	+
Human CD56 MY NC Human CD62L DR Human CD69 FN Human CD79a (I/C) HM Human CD80 L30 Human CD83 HB	MY31 NCAM16.2 DREG56	PE Alexa Fluor® 488 Alexa Fluor® 647 APC PE PE-Cy7 PE APC FITC PE PE PE-Cy7	+/- - - - - - +/-		+/- - -	
Human CD56 MY NC Human CD62L DR Human CD69 FN Human CD79a (I/C) HM Human CD80 L30 Human CD83 HB	MY31 NCAM16.2 DREG56	Alexa Fluor® 488 Alexa Fluor® 647 PE PE-Cy7 PE APC FITC FITC PE PE-Cy7	- - - - - +/-		-	-
Human CD56 MM Human CD62L DR Human CD69 FN Human CD69 L30 Human CD80 L30 Human CD83 HB	//Y31 ICAM16.2 DREG56	Alexa Fluor® 647 APC PE PE-Cy7 PE APC FITC PE PE-Cy7	- - - +/-	-	-	-
Human CD56 MM Human CD62L DR Human CD69 FN Human CD69 L30 Human CD80 L30 Human CD83 HB	//Y31 ICAM16.2 DREG56	APC PE PE-Cy7 PE APC FITC PE PE-Cy7	- - +/-	-	-	-
Human CD56 MM Human CD62L DR Human CD69 FN Human CD69 L30 Human CD80 L30 Human CD83 HB	//Y31 ICAM16.2 DREG56	PE PE-Cy7 PE APC FITC PE PE-Cy7	- - +/-	-	-	-
Human CD62L DR Human CD69 FN Human CD79a (I/C) HM Human CD80 L30 Human CD83 HB	NCAM16.2 DREG56	PE-Cy7 PE APC FITC PE PE-Cy7	+/-	-	-	-
Human CD62L DR Human CD69 FN Human CD79a (I/C) HM Human CD80 L30 Human CD83 HB	NCAM16.2 DREG56	PE APC FITC PE PE-Cy7	+/-			
Human CD62L DR Human CD69 FN Human CD79a (I/C) HM Human CD80 L30 Human CD83 HB	NCAM16.2 DREG56	PE APC FITC PE PE-Cy7		+/-		
Human CD62L DR Human CD69 FN Human CD79a (I/C) HM Human CD80 L30 Human CD83 HB	DREG56	FITC PE PE-Cy7	_		-	_
Human CD62L DR Human CD69 FN Human CD79a (I/C) HM Human CD80 L30 Human CD83 HB	DREG56	PE PE-Cy7	_			-
Human CD62L DR Human CD69 FN Human CD79a (I/C) HM Human CD80 L30 Human CD83 HB	DREG56	PE-Cy7	-		_	-
Human CD69FNHuman CD79a (I/C)HMHuman CD80L30Human CD83HB233		· · · · · · · · · · · · · · · · · · ·		-	_	-
Human CD69FNHuman CD79a (I/C)HMHuman CD80L30Human CD83HB233					_	-
Human CD79a (I/C) HM Human CD80 L30 Human CD83 HB	N50	PE	-	-	_	-
Human CD79a (I/C) HM Human CD80 L30 Human CD83 HB	·N50	APC	-	-	_	-
Human CD80 L30 Human CD83 HB		PE	+/-	-	_	-
Human CD80 L30 Human CD83 HB		APC	+	+	+	
Human CD83 HB	1M47	PE	+	+	+	
23	.307.4	PE		+	+	
23		APC	+			
22:	IB15e	PE	+	+/-	+/-	
	1001	APC	+			
Human CD86		PE	+	+	+	
IT2	T2.2	PE	+	+	+	
		APC	+	+	+	
Human CD94 HP	IP-3D9	FITC	+	+	+	
		PE	+	+	+	
		APC	-	-	-	-
Human CD0E		FITC	-	-	-	-
Human CD95 DX	DX2	PE	-	-	-	-
		PE-Cy5	-	-	-	-
		APC	-	-	-	-
Human CD117 YB	/B5.B8	PE	+	+	+	+
		PerCP-Cy5.5	-	-	-	-
Human CD123 7G	7G3	PerCP-Cy5.5	-		-	+
Human CD127 hlL	nIL-7R-M21	PE	-		-	-
Human CD138 Mi	vii15	PE	+	+	+	
		APC	+/-	-	-	-
Human CD161	12	FITC	-	-	-	-
Human CD161 DX	DX12	PE	-	-	-	-
		PerCP-Cy5.5	-	-	-	-
		APC		-	_	
		FITC	-	-	-	
2D	107	PE		-	-	
Human CD195		PE-Cy7	+/-	-	-	
		APC		-	-	
3A	BA9	PE	-	-	-	
DC-SIGN DC		PE	+	+	+	

Notes:

Blank indicates not tested

						-
			Protocol I Detergent method	Protocol II Mild alcohol method	Protocol III Harsh alcohol method	Protocol IV Detergent method
Fix buffer recommended for PBMCs or cell lines:			BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ 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				
		APC	+	+	+	
	C 4 C 6	FITC	+	+	+/-	
	G46-6	PE	+	+	+	
		APC	+	+	+	
HLA-DR	Tu36	APC	+			
nLA-DK	1050	PE	+	+/-	-	
		APC				+
	1243	APC-Cy7				+
	L2+J	PE				+
		PerCP-Cy5.5				+
lgD	IA6-2	PE	-	-	-	
lgM	G20-127	PE	+	+/-	+/	

Notes:

Blank indicates not tested

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 Detergent method	Protocol II Mild alcohol method	Protocol III Harsh alcohol method	Protocol IV Detergent method
Fix b	uffer recommende	d for PBMCs or cell lines:	BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)
		blood, splenocytes, bone 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				
		Alexa Fluor® 488		+	_	-
		APC	+		-	+/-
		APC-Cy7			_	_
	145-2C11	PE	+	+	_	+
		PE-Cy5			_	+/-
		PerCP		+/-	_	_
		PerCP-Cy5.5		+/-	_	+/-
		Alexa Fluor® 700			_	+/-
	500A2	Pacific Blue™			_	+
Mouse CD3	JUUAL	PE		+	+	т
		Alexa Fluor® 647	+	+ +	+	
		Alexa Fluor® 700	+	+		+
					-	+/-
		APC			+	+
	17A2	FITC	+	+	+	+
		Pacific Blue™			_	+/-
		PE		+	+/-	+
		PE-Cy5			+/-	+
		PerCP-cy5.5				+
		APC-Cy7				
	GK1.5	FITC		+	+	-
		PE	+	+	+	_
		Alexa Fluor® 488		+	+	-
		Alexa Fluor® 647		+	+	_
		Alexa Fluor® 700			+	_
		APC			+	_
		FITC		+	_	_
Mouse CD4	RM4-5	Pacific Blue™			+	_
		PE		+	+	_
		PE-Cy5			+	_
		PE-Cy7			+	_
		PerCP		+		_
		PerCP-Cy5.5				
		FITC		+	+ +	
	H129.19	PE			+ +/-	
	n129.19					-
		PE-Cy5			_	_
		Alexa Fluor® 488		+	+	-
		Alexa Fluor® 647		+	+	-
		APC	+		+	-
		APC-Cy7			_	-
	53-6.7	FITC				-
	55 0.7	Pacific Blue™			+	
Mouse CD8		PE	+	+	+	_
		PE-Cy5			-	-
		PerCP		+	_	-
		PerCP-Cy5.5		+	-	-
	H35-17.2	PE			_	-
					_	_
	53-5.8 FITC PE					

Notes:

Blank indicates not tested

Is buffer ecommended for whole block, spinnocytes, bone marrow, and other same based spinnocytes, base marrow, and other spinnocytes, base marrow, and				Protocol I	Protocol II	Protocol III	Protocol IV
Number for which is classes, in the system 654657 055657 057867 <				Detergent method	Mild alcohol method	Harsh alcohol method	Detergent method
marone, and other subsets Baller (5580) Baller (5580) Baller (5580) Baller (5580) Baller (5580) spacificity Ione Journame (1975) Spacificity	Fix buffe	Fix buffer recommended for whole blood, splenocytes, bone					
Spacificity Normal Busing (55)(85) Operation (55)(85) Operation (55)(85) Operation (55)(85) Spacificity Name (1) Name (1) Name (1) Name (1) Masse (2) Name (2) Name (2) Name (2) Name (2) Masse (2) Name (2) Name (2) Name (2) Name (2) Masse (2) Name (2) Name (2) Name (2) Name (2) Masse (2) Name (2) Name (2) Name (2) Name (2) Masse (2) Name (2) Name (2) Name (2) Name (2) Masse (2) Name (2) Name (2) Name (2) Name (2) Masse (2) Name (2) Name (2) Name (2) Name (2) Name (2) Masse (2) Name (2) Name (2) Name (2) Name (2) Name (2) Masse (2) Name (2) Name (2) Name (2) Name (2) Name (2) Masse (2) Name (2) Name (2) Name (2) Name (2) Name (2) Masse (2) Name (2)							
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Muse C011b Min Point Poin	Specificity	Clone	Fluorochrome				
Mase C011b Number Num Num Number Number Number Num Number Number Number N			Alexa Fluor® 488		+	+	+
<table-container> Mn2e Mn2 FC Image Imag</table-container>						+	+
<table-container> Modes CD110 MI//P FIC + +- +- +- PE PC + + + + PE PC + + + + MeetS CD112 PE + + + + Mouse CD11 PE - + + + Mouse CD11 PE - + + + Mouse CD11 PE - - - - - Mouse CD13 PE PE - - - - - Mouse CD213 PE PE - <</table-container>							
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Perf 							
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<table-container>Noise CD19Noise CD2PE-CyC PCPC/G55Moise CD21/35PB-PMoise CD21PB-PMoise CD24PB-PMoise CD24Mif9PE-CMoise CD24Mif9PE-CPE-CPE-C</table-container>				+	+		
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Nouse CD24PE+Mouse CD24PE+FTCPEFTCPE-+++PEPEFTCPEPEPEPEPEPEPEPEPEPEMouse CD27LG3A10PEMouse CD4337.51PEMouse CD43S7PEMouse CD43S7PEMouse CD45PEMouse CD45PEMouse CD45PEMouse CD45PEMouse CD45PEMouse CD45PEMouse CD45PEMouse CD45PE	Mouse CD23	R3R4		+/-			
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Mouse CD25SC (V) PC61PE()()()()APC (V) PC61PE() <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
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Pc61 APC-Cy7 Image (Cy7) Imag	Mouse CD25	PC61					_
PC61 PE PC PE PC						_	_
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Mouse CD27LG.3A10PEImage CD2837.51PEImage CD2837.51PEImage CD2837.51PEImage CD2837.51PEImage CD2837.51PEImage CD2837.51PEImage CD28Image CD2837.51PEImage CD28Image CD28Imag			PE-Cy7			_	_
Mouse CD2837.51PENomeMouse CD4357PE+++Mouse CD44IM7FIC+++Mouse CD45M7PE-++Mouse CD4530F11PE-+++Mouse CD45M7PE-++++Mouse CD45M7PE-++++Mouse CD45R/B220M8++++++Mouse CD45R/B220RA3-6B2PEMouse CD45R/B220RA3-6B2PE++++++Mouse CD45R/B220RA3-6B2PE++++++++Mouse CD45R/B220RA3-6B2RA3-6B2PE+++ <td></td> <td></td> <td>PerCP-Cy5.5</td> <td></td> <td></td> <td>-</td> <td>-</td>			PerCP-Cy5.5			-	-
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Mouse CD44APC FITC PE(Mouse CD45APC PEBoF11PE PerCP-Cy5.5-++14.8PE PerCP-Cy5.5-++Alexa Fluor® 647+++Alexa Fluor® 647-+++Alexa Fluor® 647-+++Alexa Fluor® 647-+++Alexa Fluor® 647-+APCC-+APCC-+APCC-+							
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Mouse CD45R/B220 Alexa Fluor® 647 + + + + Nouse CD45R/B220 Alexa Fluor® 700 - + - - Mouse CD45R/B220 RA3-682 APC + + + + PC + + + + + + PC + + + + + + PC Cy7 + + + + + PE + + + + + PE + + + + + PE-Cy7 + + + + + PerCP + + + + +		17.0		+	+		
Mouse CD45R/B220 Alexa Fluor® 700 $ +$ $+$ $-$ Nouse CD45R/B220 Alexa Fluor® 700 $ -$ Mouse CD45R/B220 RA3-682 Alexa Fluor® 700 $ -$ Mouse CD45R/B220 RA3-682 Alexa Fluor® 700 $ -$ Mouse CD45R/B220 RA3-682 Alexa Fluor® 700 $ -$ Mouse CD45R/B220 RA3-682 Alexa Fluor® 700 $ -$ Mouse CD45R/B220 RA3-682 Alexa Fluor® 700 $ -$ Mouse CD45R/B220 RA3-682 $ +$ $+$ $+$ $+$ PerC/F020 $ +$ $+$ $+$ $+$ $+$ PerCP-Cy5.5 $ -$							
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Mouse CD45R/B220 APC-Cy7 Impact				+	+		
Mouse CD45R/B220 FITC + + + + Pacific Blue TM + +							
PE + + + PE-Q5 + + + PE-Q7 + + + PE-Q7 + + + PE-Texas Red® + + + PerCP + + + PerCP-Cy5.5 + + + Marce CM9h DY5 FITC -			FITC	+	+	+	+
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PE-Texas Red® + + + PerCP + + + PerCP-Cy5.5 + + + Marce CM4Ph Dy5 FITC -							
PerCP + + + - PerCP-Cy5.5 + + + + + Marce CM4b Dy5 FITC - - - -							
PerCP-Cy5.5 + + + + Marce CM49h Dy5 FITC - - - -							
Maura (DA9h DY5 FITC							
				+			
	Mouse CD49b	DX5	FITC PE		-	- +	- +

Notes:

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				Í		
			Protocol I Detergent method	Protocol II Mild alcohol method	Protocol III Harsh alcohol method	Protocol IV Detergent method
Fix bu	Fix buffer recommended for PBMCs or cell lines:			BD Cytofix™ Buffer (554655)	BD Cytofix™ Buffer (554655)	BD Cytofix™ 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)
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		-	-	
Mouse CD69	HI.2F3	PE		-	-	
Mouse GR-1	RB6-8C5	FITC		+	+	
Wouse Gr-1	RB0-8C3	PE	+	+	+	
Mouse I-A/I-E	M5/114.15.2	PE		+	+	
WOUSE I-A/I-L	2G9	FITC		+	+	
Mouse IgD	11-26.c2a	FITC	+		_	
	II/41	APC	+			
Mouse IgM	1// 41	FITC	+		_	
	R6-60.2	PerCP-Cy5.5	+			
Mouse Ly6C	AL-21	FITC	+	-	-	
Mouse I-A(b)	AF6-120.1	FITC	+/-	-	_	
wouse I-A(b)	AF0-120.1	PE	+	-	-	
		APC			_	+
		FITC	-	-	-	-
Mouse NK1.1	PK136	PE	+	-	-	+
		PE-Cy7			_	_
		PerCP-Cy5.5			-	-
		APC	+	+	+	+
Mouse TCR	H57-597	FITC		+	+	-
		PE	+	+	+	+

Notes:

Blank indicates not tested

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APC-Cy7: US patent 5,714,386



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