

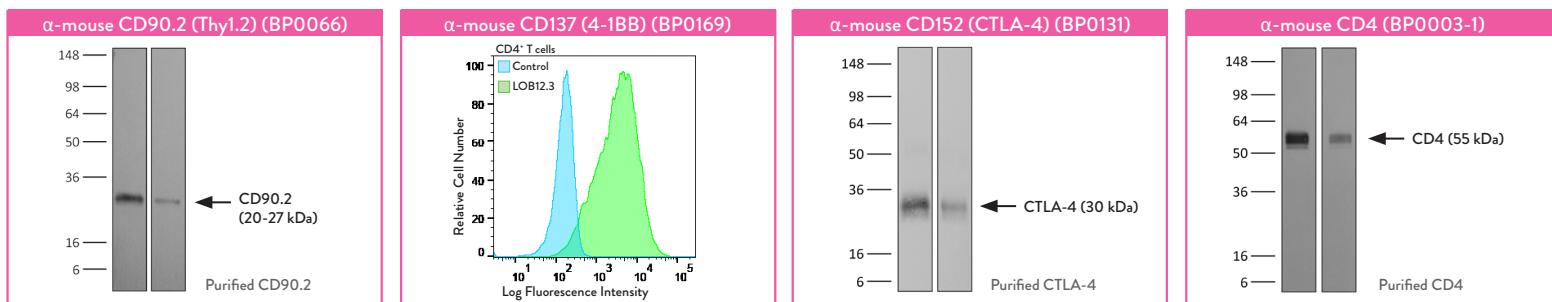
# CD Markers

## Antibodies Targeting CD Markers

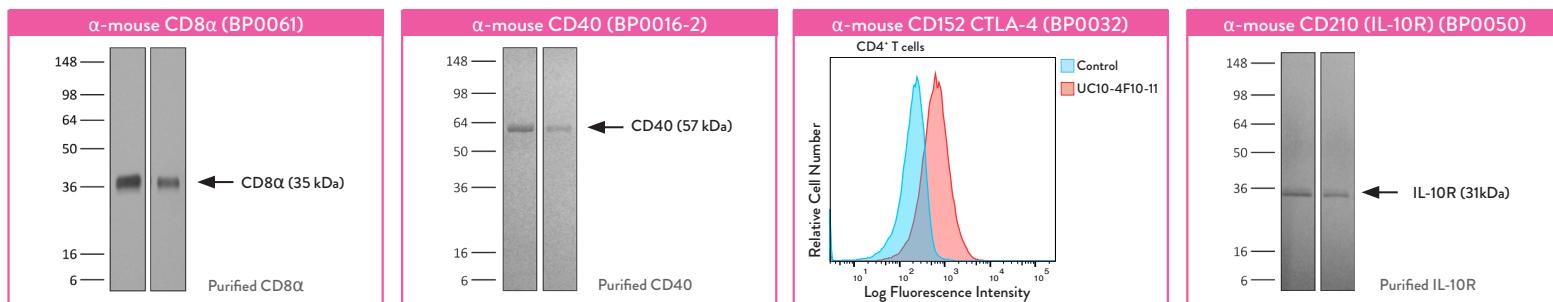
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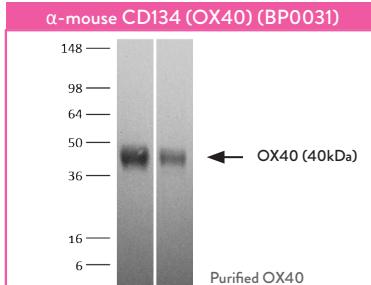
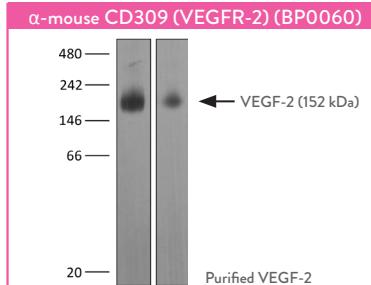
# CD Marker Antibodies



Antigen	Reactivity	Application	Clone	InVivoMab Catalog	InVivoPlus Catalog
CD1a	human	<i>in vitro</i> CD1a blockade, FC	OKT-6	BE0211	
CD1d (CD1.1)	mouse	<i>in vivo</i> CD1d neutralization	19G11	BE0000	
CD1d (CD1.1)	mouse	iNKT cell neutralization, <i>in vivo</i> CD1d blockade, FC	20H2 (HB323)	BE0179	
CD3	human	<i>in vitro</i> T cell stimulation/activation, <i>in vivo</i> T cell depletion in humanized mice, <i>ex vivo</i> T cell inhibition for xenographs, FC	OKT-3	BE0001-2	
CD3	mouse	<i>in vitro</i> T cell stimulation/activation	17A2	BE0002	
CD3	human	<i>in vivo</i> T cell depletion in humanized mice, <i>ex vivo</i> T cell inhibition for xenographs, FC	UCHT1 (Leu-4) (T3)	BE0231	
CD3ε	mouse	<i>in vivo</i> T cell depletion, <i>in vitro</i> T cell stimulation/activation, IF, FC	145-2C11	BE0001-1	BP0001-1
CD3ε	mouse	<i>in vitro</i> T cell negative selection, <i>in vitro</i> T cell stimulation/activation, IF	KT3	BE0261	
CD3ε F(ab')2 fragment	mouse	<i>in vivo</i> T cell depletion	145-2C11 F(ab')2 Fragments	BE0001-1FAB	
CD4	mouse	<i>in vivo</i> CD4+ T cell depletion, FC	GK1.5	BE0003-1	BP0003-1
CD4	human	<i>in vitro</i> T cell stimulation/activation, <i>in vivo</i> CD4+ T cell depletion in humanized mice, FC, IP	OKT-4	BE0003-2	
CD4	mouse	<i>in vivo</i> blockade of CD4+ T-cell responses, WB	YTS 177	BE0003-3	
CD4	mouse	<i>in vivo</i> CD4+ T cell depletion	YTS 191	BE0119	
CD4	human	<i>in vitro</i> CD4 blockade, <i>in vitro</i> blocking of CD4+ T cell activation, IF, IHC-F, FC	RPA-T4	BE0288	
CD4	rat	<i>in vivo</i> CD4+ T cell depletion, FC	OX-38	BE0308	
CD8 (Lyt 2.1)	mouse	<i>in vivo</i> CD8+ T cell depletion, FC	116-13.1 (HB129)	BE0118	
CD8α	mouse	<i>in vivo</i> CD8+ T cell depletion, IF, FC	53-6.7	BE0004-1	BP0004-1
CD8α	human	<i>in vivo</i> CD8+ T cell depletion in humanized mice	OKT-8	BE0004-2	
CD8α	mouse	<i>in vivo</i> CD8+ T cell depletion	2.43	BE0061	BP0061
CD8α	mouse	<i>in vivo</i> CD8+ T cell depletion	YTS169.4	BE0117	BP0117
CD8β (Lyt 3.2)	mouse	<i>in vivo</i> CD8+ T cell depletion, <i>in vitro</i> CD8 blockade, IF	53-5.8	BE0223	
CD11a (LFA-1α)	human	<i>in vitro</i> LFA-1 neutralization	TS-1/22.1.1.13	BE0005	
CD11a (LFA-1α)	mouse	<i>in vivo</i> LFA-1 neutralization	FD441.8	BE0005-1	
CD11a (LFA-1α)	mouse	<i>in vivo</i> LFA-1 neutralization, FC	M17/4	BE0006	
CD11a (LFA-1α)	human	Functional assays, FC	R7-1	BE0192	
CD11b	mouse/human	<i>in vivo</i> CD11b neutralization, ILC2 cell purification, FC	M1/70	BE0007	
CD16/CD32	mouse	<i>in vivo</i> and <i>in vitro</i> Fc receptor blocking	2.4G2	BE0307	
CD18	mouse	<i>in vivo</i> LFA-1 neutralization	M18/2	BE0009	
CD19	mouse	<i>in vivo</i> B cell depletion, <i>in vivo</i> CD19 neutralization, <i>in vitro</i> B cell negative selection, FC	1D3	BE0150	
CD19	human	FC, Functional assays, IF, Chimeric antigen receptor construction	4G7	BE0281	
CD20	human/monkey	<i>in vivo</i> B cell depletion in hCD20 Tg mice, IHC-F, IP, FC	2H7	BE0276	
CD20	mouse	FC, WB	AISB12	BE0302	
CD22	mouse	<i>in vivo</i> B cell depletion in combination with anti-CD19 (clone 1D3) and anti-rat K Light Chain (clone MAR 18.5), FC, IP	Cy34.1	BE0011	
CD25 (IL-2Ra)	mouse	<i>in vivo</i> regulatory T cell depletion, FC	PC-61.5.3	BE0012	BP0012
CD25 (IL-2Ra)	human	IP, IF	7G7B6	BE0014	
CD28	mouse	<i>in vivo</i> CD28 blockade, <i>in vitro</i> T cell stimulation/activation	37.51	BE0015-1	
CD28	mouse	<i>in vitro</i> T cell stimulation/activation	PV-1	BE0015-5	
CD28	rat	<i>in vitro</i> T cell stimulation/activation, FC	JJ319	BE0040	
CD28	human	<i>in vitro</i> T cell stimulation/activation	9.3	BE0248	
CD28	human/monkey	<i>in vitro</i> T cell stimulation/activation, FC, IHC-F	CD28.2	BE0291	
CD28	mouse	<i>in vivo</i> and <i>in vitro</i> T cell stimulation/activation	D665	BE0328	
CD29	mouse	IF, FC	KM16	BE0232	
CD32 (FcγRIIA)	human	<i>in vivo</i> FcγRIIA blockade in humanized mice, <i>in vitro</i> FcγRIIA blockade, ELISA, FC	IV.3	BE0224	
CD38	mouse	<i>in vivo</i> and <i>in vitro</i> CD38 stimulation, <i>in vitro</i> B cell activation, IF	NIMR5	BE0317	
CD40	mouse	<i>in vivo</i> CD40 activation, <i>in vitro</i> B cell stimulation/activation	FGK4.5/FGK45	BE0016-2	BP0016-2
CD40	human	<i>in vitro</i> B cell stimulation, <i>in vitro</i> macrophage stimulation, Functional assays, FC	G28.5	BE0189	
CD154 (CD40L)	mouse	<i>in vivo</i> and <i>in vitro</i> blocking of CD40/CD40L signaling	MR-1	BE0017-1	BP0017-1
CD154 (CD40L)	human/monkey	<i>in vitro</i> blocking of CD40/CD40L signaling, <i>in vivo</i> blocking of CD40/CD40L signaling, IP, FC	5C8	BE0292	
CD44	mouse/human	<i>in vivo</i> CD44 neutralization	IM7	BE0039	
CD44	human	<i>in vitro</i> CD44 blockade, WB, IF	Hermes-1	BE0262	
CD45RB	mouse	<i>in vivo</i> anti-CD45RB-mediated tolerance induction, <i>in vivo</i> pre-mNK cell depletion	MB23G2 (HB220)	BE0019	



Antigen	Reactivity	Application	Clone	InVivoMab Catalog	InVivoPlus Catalog
CD45.2	mouse	<i>in vivo</i> and <i>in vitro</i> CD45.2 blockade, FC, IHC-F,	104.2	BE0300	
CD47	human	<i>in vivo</i> CD47 neutralization in human tumor xenograft models or humanized mice, <i>in vitro</i> CD47 neutralization, FC	B6H12	BE0019-1	
CD47	human/mouse/rat	<i>in vivo</i> and <i>in vitro</i> CD47 blockade, IF	MIAP410	BE0283	BP0283
CD47 (IAP)	mouse	<i>in vivo</i> CD47 blockade, IF	MIAP301	BE0270	
CD48	mouse	<i>in vivo</i> and <i>in vitro</i> CD48 blockade	HM48-1	BE0147	
CD49d (VLA-4)	mouse/human	<i>in vivo</i> and <i>in vitro</i> VLA-4 neutralization, FC	PS/2	BE0071	
CD54 (ICAM-1)	mouse	<i>In vivo</i> ICAM-1 neutralization	YN1/17.4	BE0020-1	
CD54 (ICAM-1)	human	<i>in vitro</i> T cell stimulation/activation, IF	R6-5-D6	BE0020-2	
CD62E (E-Selectin)	human	FC	CL2	BE0136	
CD62E (E-Selectin)	mouse	<i>in vivo</i> and <i>in vitro</i> E-selectin blockade, IHC-F	9A9	BE0294	
CD62L (L-Selectin)	mouse	<i>In vivo</i> CD62L neutralization	Mel-14	BE0021	
CD69	mouse	<i>in vivo</i> down-regulation of CD69 expression, Functional assays	CD69.2.2	BE0330	
CD70	mouse	<i>in vivo</i> and <i>in vitro</i> CD70 blockade, FC	FR70	BE0022	
CD71	human	FC, IHC-F	OKT9	BE0023	
CD71 (TfR)	human	WB, IP, FC	5E9C11	BE0343	
CD71 (TfR1)	mouse	<i>in vivo</i> depletion of CD71+ cells	R17 217.1.3/TIB-219	BE0175	
CD71 (TfR1)	mouse	<i>in vivo</i> depletion of CD71+ cells, IF, IHC-F, FC	8D3	BE0329	
CD71 (TfR1)	rat/mouse	Targeted drug delivery to the brain, IHC-F, FC	OX-26	BE0331	
CD73	mouse	<i>in vivo</i> CD73 blockade	TY/23	BE0209	
CD80	rat	FC	3H5	BE0187	
CD80 (B7-1)	mouse	<i>in vivo</i> B7-1 blockade, affinity chromatography	1G10	BE0134	
CD80 (B7-1)	mouse	<i>In vivo</i> CD80 blockade, FC	16-10A1	BE0024	
CD86 (B7-2)	mouse	<i>In vivo</i> CD86 blockade, FC	GL-1	BE0025	
CD90 (Thy1)	mouse	<i>in vitro</i> T cell depletion	M5/49.4.1	BE0076	
CD90.1 (Thy1.1)	mouse	<i>in vivo</i> T cell depletion	19E12	BE0214	
CD90.2 (Thy1.2)	mouse	<i>in vivo</i> ILC depletion, <i>in vivo</i> T cell depletion	30H12	BE0066	BP0066
CD91 (LRP1)	mouse/human/rat	WB, IF, IP	11H4	BE0333	
CD96	mouse	<i>in vivo</i> and <i>in vitro</i> CD96 blocking, FC	3.3	BE0337	
CD103	mouse	<i>In vivo</i> CD103 neutralization, IF, FC	M290	BE0026	
CD106 (VCAM-1)	mouse	<i>in vivo</i> VCAM-1 neutralization, IF	M/K-2.7	BE0027	
CD115 (CSF1R)	mouse	<i>in vivo</i> macrophage depletion, <i>in vivo</i> monocyte depletion, <i>in vitro</i> CSF-R1 neutralization, FC	AFS98	BE0213	BP0213
CD115 (CSF1R)	human	<i>in vitro</i> CSF1R neutralization, IHC-P, FC, Functional assays	2-4A5-4	BE0347	
CD117 (c-Kit)	mouse	FC, IF, IHC	2B8	BE0280	
CD119 (IFNγR)	mouse	<i>in vivo</i> IFNγR neutralization	GR-20	BE0029	
CD119 (IFNγRa)	mouse	WB, IP, FC	2E2	BE0287	
CD120b (TNFR2)	mouse	<i>in vivo</i> TNFR2 blockade, <i>in vitro</i> TNFR2 blockade	TR75-54.7	BE0247	
CD121a (IL-1 R)	mouse	<i>in vitro</i> IL-1 R blockade	JAMA-147	BE0256	
CD122 (IL-2Rβ)	mouse	<i>in vitro</i> NK cell negative selection, IP, FC	5H4	BE0272	
CD122 (IL-2Rβ)	mouse	<i>in vivo</i> NK cell depletion, <i>in vitro</i> IL-2R blockade, Functional assays, FC	TM-Beta 1	BE0298	
CD127 (IL-7Rα)	mouse	<i>in vivo</i> blocking of IL-7Rα signaling, FC	A7R34	BE0065	
CD132 (common γ chain)	mouse	<i>in vivo</i> γc blockade, Functional assays, IP, FC	3E12	BE0271	
CD134 (OX40)	mouse	<i>in vivo</i> and <i>in vitro</i> OX40 activation	OX-86	BE0031	BP0031
CD134L (OX40L)	mouse	<i>in vivo</i> blocking of OX40/OX40L signaling, <i>in vitro</i> OX40L neutralization	RM134L	BE0033-1	
CD137 (4-1BB)	mouse	<i>in vivo</i> activation of 4-1BB	LOB12.3	BE0169	BP0169
CD137 (4-1BB)	mouse	<i>in vivo</i> and <i>in vitro</i> 4-1BB stimulation	3H3	BE0239	BP0239
CD137 (4-1BB)	mouse	<i>in vitro</i> 4-1BB blockade, FC	17B5	BE0296	
CD137L (4-1BBL)	mouse	<i>in vivo</i> 4-1BBL blockade	TKS-1	BE0110	
CD152 (CTLA-4)	mouse	<i>in vivo</i> and <i>in vitro</i> CTLA-4 neutralization, FC	UC10-4F10-11	BE0032	BP0032
CD152 (CTLA-4)	mouse	<i>in vivo</i> and <i>in vitro</i> CTLA-4 neutralization, FC	9H10	BE0131	BP0131
CD152 (CTLA-4)	mouse	<i>in vivo</i> CTLA-4 neutralization	9D9	BE0164	BP0164
CD152 (CTLA-4)	human	<i>in vitro</i> CTLA-4 neutralization, FC	BN13	BE0190	



	InVivoMab vs. InVivoPlus	
purity level	InVivoMab > 95%	InVivoPlus > 95%
protein aggregates validated at $\leq$ 5%		
azide and carrier protein free		
endotoxin concentration	< 2EU/mg	< 1EU/mg
validated by immunoblot, FC, or ELISA		
tested for murine pathogens		
available in bulk quantities		

Antigen	Reactivity	Application	Clone	InVivoMab Catalog	InVivoPlus Catalog
CD159 (NKG2A/C/E)	mouse	<i>in vivo</i> and <i>in vitro</i> NKG2A blockade, IHC-F, FC	20D5	BE0321	
CD161 (NK1.1)	mouse	<i>in vivo</i> NK cell depletion, FC	PK136	BE0036	BP0036
CD162 (PSGL-1)	mouse	<i>in vivo</i> PSGL-1 blockade, IHC-F	4RA10	BE0186	
CD172a (SIRPa)	mouse	<i>in vivo</i> and <i>in vitro</i> SIRPa blocking, WB, IP, FC	P84	BE0322	
CD178 (FasL)	mouse	<i>in vivo</i> and <i>in vitro</i> FasL blockade, Functional assay, IHC-P, FC	MFL3	BE0319	
CD183 (CXCR3)	mouse	<i>in vivo</i> CXCR3 neutralization, FC	CXCR3-173	BE0249	
CD193 (CCR3)	mouse	<i>in vivo</i> eosinophil depletion	6S2-19-4	BE0316	
CD200 (OX2)	mouse	<i>in vivo</i> and <i>in vitro</i> CD200 blockade, IHC-F, IF, FC	OX-90	BE0299	
CD209b (SIGN-R1)	mouse	<i>in vivo</i> SIGN-R1 blockade, IHC-F, WB, FC	22D1	BE0220	
CD210 (IL-10R)	mouse	<i>in vivo</i> blocking of IL-10/IL-10R signaling, <i>in vitro</i> blocking of IL-10R signaling, FC	1B1.3A	BE0050	BP0050
CD220 (Insulin Receptor)	human	WB	IR 83-22	BE0338	
CD223 (LAG-3)	mouse	<i>in vivo</i> and <i>in vitro</i> LAG-3 neutralization, FC	C9B7W	BE0174	BP0174
CD227 (MUC1)	human	<i>in vivo</i> administration in mouse xenograft models, <i>in vitro</i> cell cytotoxicity assay, WB, IHC-P, IF,	C595 (NCRC48)	BE0336	
CD243 (MDR-1)	human/monkey	<i>in vivo</i> MDR-1 blocking/depletion in xenogeneic murine tumor models, <i>in vitro</i> MDR-1 blocking, IHC-P	UIC2	BE0340	
CD254 (RANKL)	mouse	<i>in vivo</i> RANKL blockade	IK22/5	BE0191	
CD262 (DR5)	mouse	<i>in vivo</i> and <i>in vitro</i> induction TRAIL-mediated apoptosis	MD5-1	BE0161	
CD272 (BTLA)	mouse	<i>in vivo</i> BTLA stimulation, <i>in vivo</i> BTLA blockade	6A6	BE0132	
CD272 (BTLA)	mouse	<i>in vivo</i> and <i>in vitro</i> stimulation of BTLA, FC	PK18.6	BE0153	
CD272 (BTLA)	mouse	<i>in vivo</i> BTLA blockade, <i>in vitro</i> T cell stimulation/activation, FC	PJ196	BE0196	
CD272 (BTLA)	mouse	FC	8F4	BE0210	
CD272 (BTLA)	mouse	<i>in vivo</i> BTLA+ B cell and CD4 T cell depletion, FC	6F7	BE0304	
CD273 (PD-L2)	mouse	<i>in vivo</i> and <i>in vitro</i> PD-L2 blockade, IHC-F, FC	TY25	BE0112	
CD274 (PD-L1)	mouse	<i>in vivo</i> PD-L1 blockade, IF, IHC-F, FC	10F.9G2	BE0101	BP0101
CD275 (ICOSL)	mouse	<i>in vivo</i> ICOSL neutralization	HK5.3	BE0028	
CD276 (B7-H3)	mouse	<i>in vivo</i> B7-H3 blockade, FC	MJ18	BE0124	
CD278 (ICOS)	mouse	<i>in vivo</i> blocking of ICOS/ICOSL signaling, FC	7E.17G9	BE0059	
CD279 (PD-1)	mouse	<i>in vivo</i> blocking of PD-1/PD-L signaling, <i>in vitro</i> PD-1 neutralization	J43	BE0033-2	BP0033-2
CD279 (PD-1)	mouse	<i>in vivo</i> blocking of PD-1/PD-L signaling	RMP1-14	BE0146	BP0146
CD279 (PD-1)	human	<i>in vitro</i> PD-1 neutralization, <i>in vivo</i> PD-1 blockade in humanized mice	J116	BE0188	
CD279 (PD-1)	human	FC	J110	BE0193	
CD279 (PD-1)	mouse	<i>in vivo</i> blocking of PD-1/PD-L signaling, <i>in vitro</i> PD-1 neutralization, IHC-F, FC, WB	29F.1A12	BE0273	BP0273
CD314 (NKG2D)	mouse	<i>in vivo</i> and <i>in vitro</i> NKG2D blockade, FC	CX5	BE0334	
CD317 (BST2, PDCA-1)	mouse	<i>in vivo</i> pDC depletion, IF, FC	927	BE0311	
CD326 (EpCAM)	mouse	WB, IF, IHC-F, FC	G8.8	BE0346	
CD340 HER2 (neu)	human/rat	<i>in vivo</i> and <i>in vitro</i> HER2/neu inhibition, IP, IF, FC	7.16.4	BE0277	
CD365 (TIM-1)	mouse	<i>in vivo</i> TIM-1 neutralization	RMT1-10	BE0113	
CD365 (TIM-1)	mouse	<i>in vivo</i> TIM-1 activation, <i>in vitro</i> T cell stimulation/activation, Functional assays, ELISA, FC	3B3	BE0289	
CD366 (TIM-3)	mouse	<i>in vivo</i> TIM-3 neutralization, <i>in vitro</i> TIM-3 blocking, FC	RMT3-23	BE0115	BP0115
CD366 (TIM-3)	mouse	<i>in vivo</i> TIM-3 neutralization, <i>in vitro</i> TIM-3 blocking, FC	B8.2C12	BE0275	
CD370 (CLEC9A)	mouse	<i>in vivo</i> Ag targeting to CLEC9A+ DCs, WB, ELISA, IP, IF, FC	7H11	BE0305	

IF Immunofluorescence | IHC-F Immunohistochemistry (frozen) | IHC-P Immunohistochemistry (parrafin) | WB Western blot | IP Immunoprecipitation | FC Flow cytometry (requires fluochrome conjugation)

For over 20 years, scientists have trusted Bio X Cell as their go-to source for *in vivo* functional grade antibodies. This is reflected in over 15,000 peer-reviewed publications citing Bio X Cell products. We understand this responsibility is of paramount importance and remain committed to producing antibodies of unparalleled quality and consistency, enabling our partners around the globe to accelerate research and discoveries.

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