

In Vivo Antibodies

Preclinical

*FUNCTIONAL
GRADE*



Functional mAbs | Blocking | Neutralization | Cell Depletion | Activation | Other Applications
Low Endotoxin ≤ 1.0 EU/mg | $\geq 95\%$ Purity | No Preservatives, Stabilizers, Carrier Protein
Immuno-Oncology | Neuroscience | Immunology | Immune Checkpoint | Isotype Controls

LOW & ULTRA LOW ENDOTOXIN ANTIBODIES

Specifications	<i>in vivo</i> mAbs Low Endotoxin	<i>in vivo</i> mAbs Ultra Low Endotoxin
Binding validation determined by WB, FC or ELISA	Yes	Yes
Endotoxin level determined by the LAL method	≤ 1.0 EU/mg	≤ 0.5 EU/mg
Antibody aggregation screening by analytical SEC	≥ 95% monomer	≥ 98% monomer
Purity by SDS PAGE	≥ 95%	≥ 98%
Formulation for <i>in vivo</i> use	No Preservatives No stabilizers No carrier protein Sterile PBS pH 7.2 - No K ⁺ or CA ²⁺ Concentration: > 5mg/mL	No Preservatives No stabilizers No carrier protein Sterile PBS pH 7.2 - No K ⁺ or CA ²⁺ Concentration: > 5mg/mL
Murine pathogen screening	Not applicable, see Ultra Low Endotoxin functional grade antibodies	Pathogen tested (IMPACT1) (see table)
Applications	<i>In vivo</i> functional studies and may be used for WB, FC, IF or IHC	
Product preparation	Functional grade preclinical antibodies are manufactured in an animal free facility using only <i>in vitro</i> protein free cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.	
Storage and handling	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 1 month, 2 to 8 °C under sterile conditions, as supplied. • 12 months, -70 °C under sterile conditions. 	

IDEXX IMPACT I (PCR-based) Mouse Pathogen Profile for Ultra Low Endotoxin *In vivo* Grade Antibodies

Mycoplasma sp.	Mouse adenovirus 1 (MAV1)	Lactate dehydrogenase-elevating virus (DLEV)
Mycoplasma pulmonis	Mouse adenovirus 2 (MAV2)	Mouse kidney parvovirus (MKPV)
Sendai virus	Murine norovirus (MNV)	Hantaan virus
Mouse hepatitis virus (MHV)	Reovirus (REO3)	Mouse cytomegalovirus (mCMV)
Pneumonia virus of mice (PvM)	Mouse rotavirus (EDIM)	K virus
Minute virus of mice (MPV)	Ectromelia virus	Mouse thymic virus (MTV)
Mouse parvovirus (MPV)	Polymavirus	<i>Corynebacterium bovis</i>
Theiler's murine encephalomyelitis (TMEV)	Lymphocytic choriomeningitis (LCMV)	<i>Corynebacterium sp.</i>

EXTENSIVE QC & BIOANALYTICAL VALIDATION

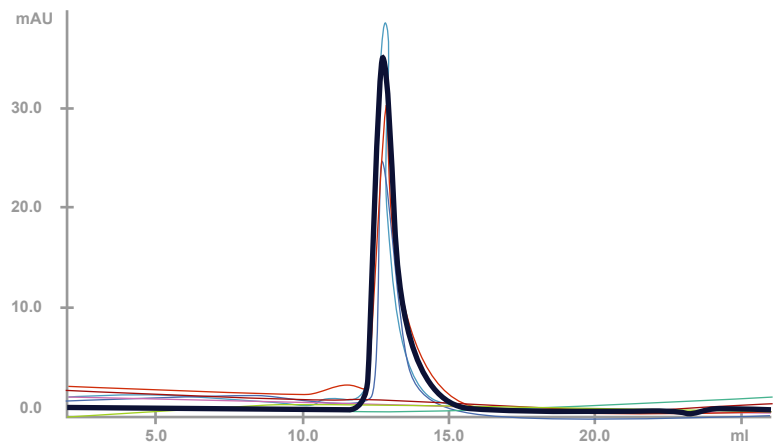
Antibodies and isotypes tested

Independent comparison of the in vivo efficacy and tolerability of clones of mAbs anti-PD-1 [RMP1-14 and 29F.1A12], anti-PD-L1 [10F.9G2], and anti-CTLA-4 [9H10] and isotype controls versus Vendor B using a CT26 syngeneic model (murine colorectal carcinoma derived from BALB/c mice). All antibodies had matching isotype controls, and phosphate-buffered saline (PBS) was used as a control.

A: Endotoxin analysis

Lot	EU/mg
0321 205	<0.24
0421 225	<0.24
0421 255	<0.24
0521 275	<0.06
0122 245	<0.24
0322 250	<0.24
0422 285	<0.12
0622 340	<0.03

B: Chromatographic analysis



C: Non-reducing



D: Reducing



Figure 1. Quality control for different lots of PD-1 [RMP1-14] antibody. All the in vivo antibodies undergo extensive quality control ensuring extreme lot-to-lot reproducibility.

Endotoxin data for eight lots demonstrate that all lots were below the specification of ≤ 0.5 EU/mg as determined by the limulus amoebocyte lysate (LAL) method (Fig. 1A).

Analysis by size exclusion chromatography visualized by superimposing chromatograms for all nine lots, with overlapping retention times and minimal baseline noise (Fig. 1B).

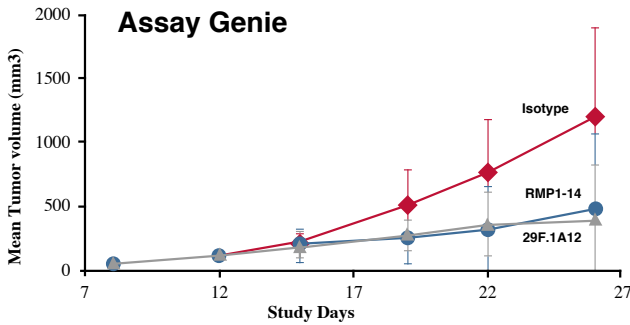
All lots show high purity as shown by non-reducing and reducing SDS-PAGE (Fig. 1C and 1D).

EFFICACY & TOLERABILITY BENCHMARKING

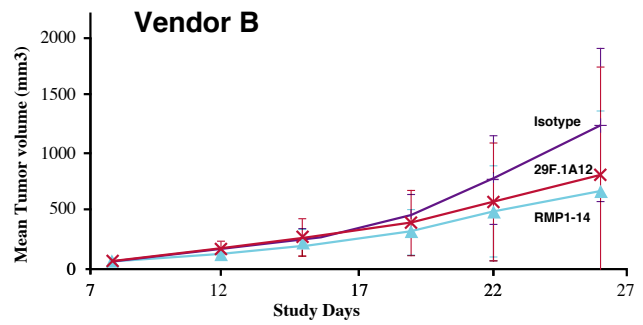
Antibodies and isotypes tested

Independent comparison of the in vivo efficacy and tolerability of clones of mAbs anti-PD-1 [RMP1-14 and 29F.1A12], anti-PD-L1 [10F.9G2], and anti-CTLA-4 [9H10] and isotype controls versus Vendor B using a CT26 syngeneic model (murine colorectal carcinoma derived from BALB/c mice). All antibodies had matching isotype controls, and phosphate-buffered saline (PBS) was used as a control.

ANTI-PD-1



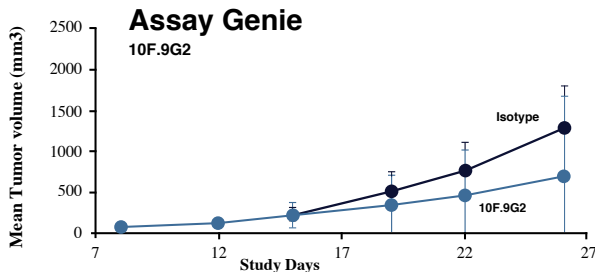
Treatment	Tumor size Day 26 (mm ³)	TGI Day 26 (%)	P-value
Isotype	1197 ± 697	-	-
RMP1-14	470 ± 597	61	0.049
29F.1A12	395 ± 432	67	0.018



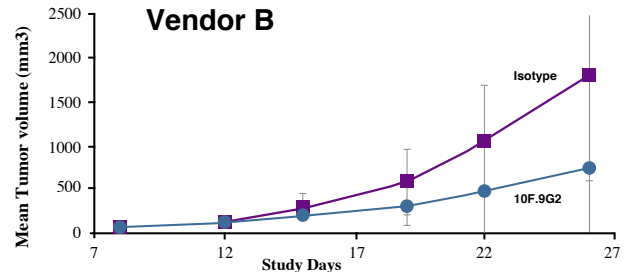
Treatment	Tumor size Day 26 (mm ³)	TGI Day 26 (%)	P-value
Isotype	1234 ± 670	-	-
RMP1-14	656 ± 704	47	0.114
29F.1A12	805 ± 939	35	0.312

Anti-PD-1 antibody clones (RMP1-14 and 29F.1A12) were more efficacious than Vendor B (Figure 1).

ANTI-PD-L1



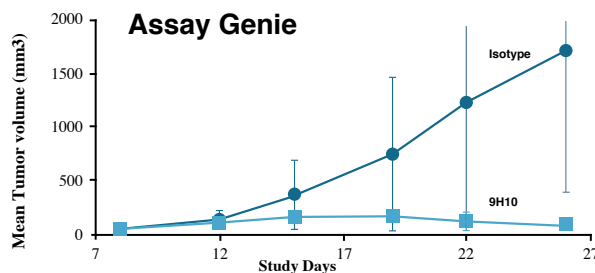
Treatment	Tumor size Day 26 (mm ³)	TGI Day 26 (%)	P-value
Isotype	1281 ± 518	-	-
10F.9G2	685 ± 978	47	0.157



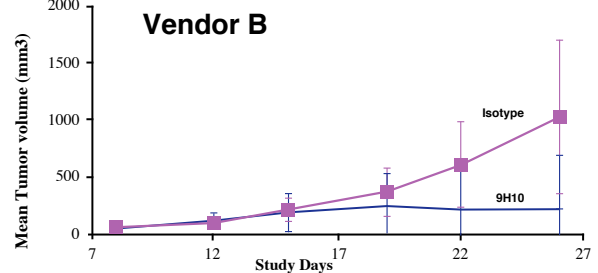
Treatment	Tumor size Day 26 (mm ³)	TGI Day 26 (%)	P-value
Isotype	1805 ± 1236	-	-
10F.9G2	739 ± 1072	59	0.087

Anti-PD-L1 10F.9G2 clones from both providers showed similar antitumor activity (tumor growth inhibition (TGI) of 47% and 59%, respectively). The efficacy of anti-PD-L1 10F.9G2 was in line with internally generated data. (Figure 2)

ANTI-CTLA-4



Treatment	Tumor size Day 26 (mm ³)	TGI Day 26 (%)	P-value
Isotype	1710 ± 1314	-	-
9H10	61 ± 23	96	< 0.001



Treatment	Tumor size Day 26 (mm ³)	TGI Day 26 (%)	P-value
Isotype	1015 ± 664	-	-
9H10	214 ± 463	79	0.016

The Assay Genie anti-CTLA-4 clone 9H10 was significantly more efficacious than the same clones from the other vendor (Figure 3).

ANTI-MOUSE IN VIVO ANTIBODIES

Immune Checkpoint & Cancer Biology				Product Codes	
In Vivo Antibodies Product Names	Reactivity	Clone	Applications	Low Endotoxin	Ultra Low Endotoxin
PD-1(CD279)(Clone RMP1-14) In Vivo mAb	Mouse	RMP1-14	In vivo, B, FA, WB	IVMB0037	IVMB0038
PD-1(CD279)(Clone 29F.1A12) In Vivo mAb	Mouse	29F.1A12	In vivo, B, CODEX®, CyTOF®, FC, IHC FF, WB	IVMB0031	IVMB0032
PD-L1 (Clone 10F.9G2) In Vivo mAb	Mouse	10F.9G2	In vivo, B, CODEX®, FC, IHC FF, WB	IVMB0095	IVMB0096
PD-L2 (CD273) In Vivo mAb	Mouse/Human	3.2.B8	In vivo, B, FC, WB	IVMB0116	IVMB0115
PD-L2 (B7-DC) In Vivo mAb	Mouse	TY25	In vivo, FC, IHC FF, IP, WB	IVMB0039	
CTLA-4 (Clone 9D9) In Vivo mAb	Mouse	9D9	In vivo, FA, WB	IVMB0072	IVMB0073
CTLA-4 (Clone 9H10) In Vivo mAb	Mouse	9H10	In vivo, B, WB	IVMB0047	IVMB0048
CTLA-4 (CD152) In Vivo mAb	Mouse	UC10-4F10	In vivo, FA, FC, IP, WB	IVMB0049	IVMB0050
CD28 In Vivo mAb	Mouse	37,51	In vivo, B, Costim, CyTOF®, FC, IHC FF, IP, WB	IVMB0056	IVMB0057
4-1BB In Vivo mAb	Mouse	3H3	In vivo, ELISA, FA, WB	IVMB0045	IVMB0046
CD120a (TNFR1)(Clone 55R-170) In Vivo mAb	Mouse	55R-170	In vivo, B, IP, WB	IVMB0142	IVMB0144
CD120a (TNFR1)(Clone 55R-593) In Vivo mAb	Mouse	55R-593	In vivo, IP, WB	IVMB0143	IVMB0145
CD172a In Vivo mAb	Mouse	P84	In vivo, B, CyTOF®, FC, IHC FF, IP	IVMB0029	IVMB0030
CD19 In Vivo mAb	Mouse	1D3	In vivo, B, CODEX®, Depletion, FC, IHC FF, IP, WB	IVMB0051	IVMB0052
CD209b In Vivo mAb	Mouse	22D1	In vivo, B, FC, IHC FF, WB	IVMB0053	IVMB0054
CD278 (ICOS) In Vivo mAb	Mouse	7E.17C9	In vivo, B, FA, WB	IVMB0082	IVMB0083
CD40 (Clone FGK45) In Vivo mAb	Mouse	FGK45	In vivo, Act, FA, FC	IVMB0152	IVMB0153
CD70 (Clone TAN1-7) In Vivo mAb	Mouse	TAN1-7	In vivo, B, ELISA, FA, FC, IF	IVMB0170	
CD80 In Vivo mAb	Mouse	16-10A1	In vivo, B, CyTOF®, IP, WB	IVMB0066	IVMB0067
CD86 (B7-2) In Vivo mAb	Mouse	GL1	In vivo, B, ELISA, WB	IVMB0156	IVMB0157
CLEC9A (CD370) In Vivo mAb	Mouse	1F6	In vivo, FC, IF, WB	IVMB0169	
GM-CSF In Vivo mAb	Mouse	MPI-22E9	In vivo, N, WB	IVMB0076	IVMB0077
IL-7R α (CD127) In Vivo mAb	Mouse	A7R34	In vivo, B, CyTOF®, FA, FC, IF Staining, IHC FF, IP, WB	IVMB0044	
LAG-3 (CD223) In Vivo mAb	Mouse	C9B7W	In vivo, B, FA, IP, WB	IVMB0088	
Ly-6G In Vivo mAb	Mouse	1A8	In vivo, CODEX®, CyTOF®, Depletion, FC, IHC FF, WB	IVMB0025	IVMB0026
Ly-6G/Ly-6C (Gr-1) In Vivo mAb	Mouse	RB6-8C5	In vivo, CyTOF®, Depletion, IHC FF, IP, WB	IVMB0091	IVMB0092
TGF- β 1, 2, 3 In Vivo mAb	Human, Mouse	1D11.16.8	In vivo, IHC, N, WB	IVMB0081	
Tim-3 (CD366) In Vivo mAb	Mouse	RMT3-23	In vivo, B, CODEX®, FC, IF Staining, IHC, IHC FF	IVMB0097	

Adhesion & Migration				Product Codes	
In Vivo Antibodies Product Names	Reactivity	Clone	Applications	Low Endotoxin	Ultra Low Endotoxin
CD11a (Clone I21/7) In Vivo mAb	Mouse	I21/7	In vivo, FA, FC	IVMB0139	IVMB0140
CD11c (Integrin alpha X) In Vivo mAb	Mouse	N418	In vivo, B, CODEX®, CyTOF®, IHC FF, WB	IVMB0141	
CD155 (PVR) In Vivo mAb	Mouse	4.24.1	In vivo, FC	IVMB0146	IVMB0147
CD44 (Clone IM7) In Vivo mAb	Mouse/Human	IM7	In vivo, CODEX®, CyTOF®, ELISA Det, FC, ICC, IHC, IP, WB	IVMB0078	IVMB0079
CD54 (Clone YN1/1.7.4) In Vivo mAb	Mouse	YN1/1.7.4	In vivo, CODEX®, CyTOF®, FA, FC, IHC FF, IP, WB	IVMB0062	IVMB0063
CDCP1 (CD318) In Vivo mAb	Human, Mouse	9A2	In vivo, FC	IVMB0138	
ICAM-1(CD54)(Clone BE29G1) In Vivo mAb	Mouse	BE29G1	In vivo, B, IP, WB	IVMB0168	IVMB0167
Integrin β 7 In Vivo mAb	Human, Mouse	FIB504	In vivo, B, CyTOF®, FC, IP	IVMB0087	
ITGAM (CD11b) In Vivo mAb	Mouse	M1/70	In vivo, CODEX®, CyTOF®, FA, FC, ICC, IHC FF	IVMB0042	IVMB0043
LFA-1 α (CD11a) (Clone FD441.8) In Vivo mAb	Mouse	FD441.8	In vivo, FA, FC, WB	IVMB0040	IVMB0041
LPAM-1 (Integrin α 4 β 7) In Vivo mAb	Mouse	DATK32	In vivo, B, FC, IHC FF, IP	IVMB0089	IVMB0090
L-Selectin (CD62L) In Vivo mAb	Mouse	MEL-14	In vivo, B, CyTOF®, FA, FC, IHC FF, IP, WB	IVMB0064	IVMB0065
TGF- β 1, 2, 3 In Vivo mAb	Human, Mouse	1D11.16.8	In vivo, IHC, N, WB	IVMB0081	

ANTI-MOUSE IN VIVO ANTIBODIES

Immunology T Cell Depletion				Product Codes	
In Vivo Antibodies Product Names	Reactivity	Clone	Applications	Low Endotoxin	Ultra Low Endotoxin
CD3 ϵ (Clone 145-2C11) In Vivo mAb	Mouse	145-2C11	In vivo, Act, B, CODEX [®] , CyTOF [®] , Depletion, FA, FC, IF, IHC, WB	IVMB0058	IVMB0059
CD3 ϵ (Clone 500A2) In Vivo mAb	Mouse	500A2	In vivo, B, FC, IHC FF	IVMB0150	IVMB0151
CD90 (Thy-1) (Clone T24/31) In Vivo mAb	Mouse	T24/31	In vivo, Depletion, FA, FC, WB	IVMB0161	IVMB0158
CD90 (Thy-1) (Clone HK2.1) In Vivo mAb	Mouse	HK2.1	In vivo, FA, WB	IVMB0160	IVMB0159
CD90.2 (Thy 1.2) In Vivo mAb	Mouse	30-H12	In vivo, CODEX [®] , Costim, CyTOF [®] , Depletion, FC, IHC FF, WB	IVMB0162	IVMB0163
TCR γ/δ In Vivo mAb	Mouse	UC7-13D5	In vivo, Depletion, FC, IP	IVMB0035	IVMB0036
Immunology CD4+ T-cell Depletion				Low Endotoxin	Ultra Low Endotoxin
CD4 (Clone GK1.5) In Vivo mAb	Mouse	GK1.5	In vivo, B, Costim, CyTOF [®] , Depletion, FA, FC, IHC, IP	IVMB0060	IVMB0061
Immunology B-cell Depletion				Low Endotoxin	Ultra Low Endotoxin
CD45R (B220) (Clone RA3-6B2) In Vivo mAb	Mouse/Human	RA3-6B2	In vivo, Act, CODEX [®] , CyTOF [®] , Depletion, FA, FC, IHC FF, IP	IVMB0180	IVMB0179
CD19 In Vivo mAb	Mouse	1D3	In vivo, B, CODEX [®] , Depletion, FC, IHC FF, IP, WB	IVMB0051	IVMB0052
Immunology CD8+ T-cell Depletion				Low Endotoxin	Ultra Low Endotoxin
CD8a (Ly 2) In Vivo mAb	Mouse	53-6.7	In vivo, B, CODEX [®] , CyTOF [®] , Depletion, FC, IHC FF, IP, WB	IVMB0068	IVMB0069
CD8a (Ly 2.2) In Vivo mAb	Mouse	2,43	In vivo, Depletion, FA, FC, ICC, IF Staining, IHC FFPE, IP	IVMB0070	IVMB0071
CD8 (Clone YTS 169) In Vivo mAb	Mouse	YTS-169	In vivo, Depletion, FC, IHC FF, WB	IVMB0154	IVMB0155
CD8b.2 In Vivo mAb	Mouse	53-5.8	In vivo, Depletion, FA, FC, ICC, WB	IVMB0093	IVMB0094
Immunology T-reg Cell Depletion				Low Endotoxin	Ultra Low Endotoxin
IL-2R α (CD25) In Vivo mAb	Mouse	PC61	In vivo, B, CODEX [®] , Depletion, FA, FC, IHC FF, IP, WB	IVMB0148	IVMB0149
Immunology $\gamma\delta$ T cell Depletion				Low Endotoxin	Ultra Low Endotoxin
TCR V γ 2 In Vivo mAb	Mouse	UC3-10A6	In vivo, Depletion, FC, IP	IVMB0074	IVMB0075
Immunology NK cell Depletion				Low Endotoxin	Ultra Low Endotoxin
NK1.1 In Vivo mAb	Mouse	PK136	In vivo, B, CyTOF [®] , Depletion, FC, IP, WB	IVMB0100	IVMB0101
Immunology Innate lymphoid cell (ILC) Depletion				Low Endotoxin	Ultra Low Endotoxin
Ly-6G/Ly-6C (Gr-1) In Vivo mAb	Mouse	RB6-8C5	In vivo, CyTOF [®] , Depletion, IHC FF, IP, WB	IVMB0091	IVMB0092
CSF-1R (CD115) In Vivo mAb	Mouse	AFS98	In vivo, B, CyTOF [®] , Depletion, FA, FC	IVMB0001	IVMB0002
Immunology Macrophage Cell Depletion				Low Endotoxin	Ultra Low Endotoxin
CSF-1R (CD115) In Vivo mAb	Mouse	AFS98	In vivo, B, CyTOF [®] , Depletion, FA, FC	IVMB0001	IVMB0002
CD209b In Vivo mAb	Mouse	22D1	In vivo, B, FC, IHC FF, WB	IVMB0053	IVMB0054
Immunology Neutrophil Cell Depletion				Low Endotoxin	Ultra Low Endotoxin
Ly-6G In Vivo mAb	Mouse	1A8	In vivo, CODEX [®] , CyTOF [®] , Depletion, FC, IHC FF, WB	IVMB0025	IVMB0026
Ly-6G/Ly-6C (Gr-1) In Vivo mAb	Mouse	RB6-8C5	In vivo, CyTOF [®] , Depletion, IHC FF, IP, WB	IVMB0091	IVMB0092

MOUSE IN VIVO ANTIBODIES

Immunology Cytokines, Chemokines & Receptors				Product Codes	
In Vivo Antibodies Product Names	Reactivity	Clone	Applications	Low Endotoxin	Ultra Low Endotoxin
IL-1 α In Vivo mAb	Mouse	ALF-161	In vivo, N, WB	IVMB0005	
IL-1 β In Vivo mAb	Mouse	B122	In vivo, IP, N, WB	IVMB0085	
IL-1R (CD121a) In Vivo mAb	Mouse	JAMA-147	In vivo, B, IP, WB	IVMB0006	
IL-2 (Clone: JES6-1A12) In Vivo mAb	Mouse	JES6-1A12	In vivo, IP, N, WB	IVMB0024	
IL-4 (Clone 11B11) In Vivo mAb	Mouse	11B11	In vivo, CyTOF [®] , ELISA Cap, ELISPOT, FA, ICC, IHC, IP, N	IVMB0086	
IL-6R α (CD126) In Vivo mAb	Mouse	D7715A7(15A7)	In vivo, FA, FC, N, WB	IVMB0181	
IL-10 In Vivo mAb	Mouse	JES5-2A5	In vivo, CyTOF [®] , N, WB	IVMB0084	
IL-12 In Vivo mAb	Mouse	C17.8	In vivo, ELISA, ICFC, IP, N, WB	IVMB0023	
CD120b (TNFR2) In Vivo mAb	Mouse	TR75-54.7	In vivo, B, ELISA Cap, FC, IP, WB	IVMB0098	IVMB0099
CSF-1R (CD115) In Vivo mAb	Mouse	AFS98	In vivo, B, CyTOF [®] , Depletion, FA, FC	IVMB0001	IVMB0002
GM-CSF In Vivo mAb	Mouse	MPI-22E9	In vivo, N, WB	IVMB0076	IVMB0077
RANKL (CD254) In Vivo mAb	Mouse	IK22/5	In vivo, B, FC, IP, WB	IVMB0055	
TNF α In Vivo mAb	Mouse	TN3-19.12	In vivo, IP, N, WB	IVMB0007	IVMB0008
Immunology Interferons				Low Endotoxin	Ultra Low Endotoxin
IFN α In Vivo mAb	Mouse	TIF-3C5	In vivo, B, FA, N, WB	IVMB0173	IVMB0174
IFN β In Vivo mAb	Mouse	MIB-5E9.1	In vivo, N, WB	IVMB0175	
IFN β In Vivo mAb	Mouse	HD β -4A7	In vivo, B, FA, N, WB	IVMB0171	IVMB0172
IFN γ (Clone H22) In Vivo mAb	Mouse	H22	In vivo, ELISA, IF, IP, N, WB	IVMB0033	IVMB0034
IFN γ (Clone XMG1.2) In Vivo mAb	Mouse	XMG1.2	In vivo, CyTOF [®] , ELISA Cap, ELISPOT, ICFC, IHC FF, N, WB	IVMB0022	
IFNAR-1 In Vivo mAb	Mouse	MAR1-5A3	In vivo, B, ELISA, FC, IP, WB	IVMB0202	IVMB0004
Immunology MHC & Other Antibodies				Low Endotoxin	Ultra Low Endotoxin
H-2b In Vivo mAb	Mouse	B8-24-3	In vivo, FA	IVMB0166	
H-2Kd (MHC Class I) In Vivo mAb	Mouse	A4C8.1-Do9	In vivo, FC, WB	IVMB0178	
H-2Kb (MHC Class I, Clone Y-3) In Vivo mAb	Mouse	Y-3	In vivo, FA, ICC, IP, WB	IVMB0009	
CD32/CD16 In Vivo mAb	Mouse	2.4G2	In vivo, B, CODEX [®] , FA, FC, IHC FF, IP, WB	IVMB0027	IVMB0010
CD3 ϵ (Clone 500A2) In Vivo mAb	Mouse	500A2	In vivo, B, FC, IHC FF	IVMB0150	IVMB0028
Dendritic Cells In Vivo mAb	Mouse	33D1	In vivo, WB	IVMB0164	IVMB0151
Ly-6C (Clone 7B10) In Vivo mAb	Mouse	7B10	In vivo, WB	IVMB0176	IVMB0165
Ly-6C (Clone HK1.4) In Vivo mAb	Mouse	HK1.4	In vivo, CODEX [®] , CyTOF [®] , IHC FF, IP, WB	IVMB0177	IVMB0177
Isotype Controls				Product Codes	
In Vivo Antibodies Product Names		Clone	Applications	Low Endotoxin	Ultra Low Endotoxin
Armenian Hamster IgG Isotype Control In Vivo mAb		PIP	In vivo Isotype control	IVMB0182	IVMB0183
Mouse IgG1 Isotype Control (Clone HKSP) In Vivo mAb		HKSP	In vivo Isotype control	IVMB0184	IVMB0187
Mouse IgG1 Isotype Control (Clone HKSP84) In Vivo mAb		HKSP84	In vivo Isotype control	IVMB0185	IVMB0186
Mouse IgG2a Isotype Control In Vivo mAb		C1.18.4	In vivo Isotype control	IVMB0188	IVMB0189
Mouse IgG2b Isotype Control In Vivo mAb		MPC-11	In vivo Isotype control	IVMB0190	IVMB0191
Mouse IgG3 Isotype Control In Vivo mAb		MG3-35	In vivo Isotype control	IVMB0192	IVMB0193
Mouse IgM Isotype Control In Vivo mAb			In vivo Isotype control	IVMB0194	IVMB0195
Rat IgG1 Isotype Control In Vivo mAb		GL113	In vivo Isotype control	IVMB0196	IVMB0197
Rat IgG2a Isotype Control In Vivo mAb		'1-1	In vivo Isotype control	IVMB0199	IVMB0198
Rat IgG2b Isotype Control In Vivo mAb		'1-2	In vivo Isotype control	IVMB0200	IVMB0201

ANTI-HUMAN & OTHER SPECIES IN VIVO ANTIBODIES

Immunology Human, NHP & Other Species				Product Codes	
In Vivo Antibodies Product Names	Reactivity	Clone	Applications	Low Endotoxin	Ultra Low Endotoxin
Alpha Defensin-5 (HD5) In Vivo mAb	Human	8C8	In vivo, Dot, ELISA, IHC FFPE, WB	IVMB0102	
CD11a In Vivo mAb	Human	38	In vivo, Costim, FC, WB	IVMB0105	IVMB0106
CD11b In Vivo mAb	Human	ICRF44	In vivo, CODEX®, FC, IF Staining, IHC FF	IVMB0107	IVMB0108
CD11c In Vivo mAb	Human	3,9	In vivo, B, CyTOF®, FA, FC, WB, IHC FF	IVMB0109	IVMB0110
CD14 In Vivo mAb	Human	UCHM-1	In vivo, FC, WB	IVMB0111	
CD16 (Clone 3G8) In Vivo mAb	NHP, Human	3G8	In vivo, B, CyTOF®, FC, IHC FF, IP	IVMB0112	IVMB0113
CD2 In Vivo mAb	Human	G11	In vivo, Costim, FC, IHC, WB	IVMB0114	
CD20 In Vivo mAb	Human	2H7	In vivo, CyTOF®, FC, WB	IVMB0018	IVMB0019
CD25 (IL-2Rα) In Vivo mAb	Human	7G7B6	In vivo, ELISA, FC, IF Staining, IP, WB	IVMB0011	
CD3 (Clone UCHT-1) In Vivo mAb	Human	UCHT-1	In vivo, Act, CODEX®, CyTOF®, FC, IF, IHC FF, IP, WB	IVMB0117	IVMB0118
CD38 (Clone OKT10) In Vivo mAb	NHP, Human	OKT10	In vivo, FC	IVMB0119	IVMB0120
CD4 (Clone OKT-4) In Vivo mAb	Human	OKT-4	In vivo, CODEX®, ELISA, FC, ICC, IF, IHC, IP, N, WB	IVMB0012	
CD40 (Clone G28.5) In Vivo mAb	Human	G28.5	In vivo, FA, FC	IVMB0013	
CD44 (Clone IM7) In Vivo mAb	H, M, NHP, Bovine, Horse, Pig	IM7	In vivo, CODEX®, CyTOF®, ELISA Det, FC, ICC, IHC, IP, WB	IVMB0078	IVMB0079
CD45R (B220) (Clone RA3-6B2) In Vivo mAb	Mouse/Human	RA3-6B2	In vivo, Act, CODEX®, CyTOF®, Depletion, FA, FC, IHC FF, IP	IVMB0180	IVMB0179
CD62L In Vivo mAb	Human	DREG56	In vivo, B, CODEX®, FC, IF, IHC FF, WB	IVMB0121	IVMB0122
CD7 In Vivo mAb	Human	T3-3A1	In vivo, FC, IF Staining	IVMB0123	
CD71 In Vivo mAb	Human	T56/14	In vivo, FC, WB	IVMB0016	IVMB0017
CD8 In Vivo mAb	Human	UCHT-4	In vivo, FA, FC, WB	IVMB0124	IVMB0125
CDCP1 (CD318) In Vivo mAb	Human	GIR-208	In vivo, FA, FC	IVMB0103	IVMB0104
CDCP1 (CD318) In Vivo mAb	Human/Mouse	9A2	In vivo, FC	IVMB0138	
EGFR In Vivo mAb	Human	EGFR.1	In vivo, IHC, WB	IVMB0126	IVMB0127
Fibulin-4 In Vivo mAb	Human	5G11	In vivo, IF Microscopy, IF Staining, IHC FFPE, WB	IVMB0128	
Hepsin (Clone 3H10.1) In Vivo mAb	Human	3H10.1	In vivo, ELISA, FC	IVMB0129	
HLA A2,B7 (MHC Class I) In Vivo mAb	Human	BB7.6	In vivo, FC	IVMB0130	
HLA-A, B, C (MHC Class I) In Vivo mAb	NHP, Feline, Bovine, Human	W6/32	In vivo, B, CODEX®, FC, IHC FF, IP, WB	IVMB0014	IVMB0015
HLA-DP (MHC Class II) Monomorphic mAb	Human	B7/21	In vivo, FC, ICC	IVMB0131	
HLA-DQ (MHC Class II) In Vivo mAb	Human	1a3	In vivo, ELISA, FC, IP, WB	IVMB0132	IVMB0133
HLA-DR (MHC Class II) In Vivo mAb	NHP, Canine, Human	L243	In vivo, B, CODEX®, CyTOF®, Depletion, FC, IHC FF, IP, WB	IVMB0020	IVMB0021
ICAM-1 In Vivo mAb	Human	15,2	In vivo, FC, IHC FFPE, IP, WB	IVMB0134	IVMB0135
IL-4 In Vivo mAb	Human	MP4-25D2	In vivo, CyTOF®, IHC, N, WB	IVMB0003	
Integrin β7 In Vivo mAb	Human/Mouse	FIB504	In vivo, B, CyTOF®, FC, IP	IVMB0087	
PD-L2 (CD273) In Vivo mAb	Mouse/Human	3.2.B8	In vivo, B, FC, WB	IVMB0116	IVMB0115
TCR Vα24-Jα18 (iNKT cell) In Vivo mAb	Human	6B11	In vivo, CyTOF®, FC	IVMB0136	IVMB0137
TGF-β In Vivo mAb	H, M, R, Bovine, Hamster	1D11.16.8	In vivo, IHC, N, WB	IVMB0080	
TGF-β1, 2, 3 In Vivo mAb	Human, Mouse	1D11.16.8	In vivo, IHC, N, WB	IVMB0081	

Table Key | B = Blocking | N = Neutralizing | Costim = Costimulation | FC = Flow Cytometry | WB = Western Blotting ICC = ImmunoCytoChemistry | IHC = In Situ Hybridization | IP = ImmunoPrecipitation | IF = ImmunoFluorescence