

CD11b Monoclonal Rat Antibody (M1/70)

Product Description

CD11b is a cell adhesion molecule that acts as a receptor for cell surface ligands such as intracellular adhesion molecules (ICAMs) or soluble ligands. Integrins are heterodimeric proteins that contain an alpha chain and beta chain. Integrin α M combines with the Integrin β 2 to form a leukocyte-specific integrin referred to as macrophage receptor 1 (Mac-1), or inactivated-C3b (iC3b) receptor 3 (CR3). Integrin α M/ β 2 is important in the adherence of neutrophils and monocytes to stimulated endothelium, and also in the phagocytosis of complement coated particles. The protein CD11b has been implicated in the various adhesion-related interactions of cells such as monocytes, macrophages, natural killer (NK) cells, and granulocytes. It is part of a heterodimer that consists of CD11b and CD18. It also modulates the uptake of complement-coated particles within the cell. It is commonly used as a microglial marker in tissues derived from the nervous system. Primary antibodies are available purified, or with a selection of fluorescent CF $\text{\textcircled{R}}$ dyes and other labels. CF $\text{\textcircled{R}}$ dyes offer exceptional brightness and photostability. See the [CF \$\text{\textcircled{R}}\$ Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF $\text{\textcircled{R}}$ 405S and CF $\text{\textcircled{R}}$ 405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors. **Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF $\text{\textcircled{R}}$ dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order. **Catalog number key for antibody number 0720, Anti-CD11b (M1/70)**

References

Note: References for this clone sold by other suppliers may be listed for expected applications.

1. J Exp Med (1990) 171, 1753-1771. (IP)
2. J Applied Physiol (2003) 95(3): 969-976. (functional studies)
3. J Leukocyte Biol (2008) 83: 728 -741. (IF)
4. Meth Enzymol (2014) 537: 297-314. (Flow)

Product attributes

Antibody number	#0720
Antibody reactivity (target)	CD11b, MAC-1
Antibody type	Primary
Host species	Rat
Clonality	Monoclonal
Clone	M1/70
Isotype	IgG2b, kappa
Molecular weight	95 kDa & 170 kDa
Synonyms	CD11 antigen-like family member B, CD11b/CD18, CD49d, Cell surface glycoprotein MAC-1 subunit alpha, Complement Component Receptor 3 Alpha, CR3 Alpha Chain (CR3A), Integrin alpha-M, Integrin beta 2 alpha subunit, ITGAM, Leukocyte adhesion receptor MO1; Ly-40, Mac-1a, MAC1, Mac1, alpha subunit, MAC1A, Macrophage antigen alpha polypeptide; MO1A, Neutrophil adherence receptor alpha M subunit
Human gene symbol	ITGAM
Entrez gene ID	3684
SwissProt	P11215
Unigene	172631
Immunogen	B10 mouse spleen cells enriched for T lymphocytes
Antibody target cellular localization	Plasma membrane
Expected antibody applications	Flow, surface (published for clone), Functional studies (published for clone), IF (published for clone), IP (published for clone)
Species reactivity	Baboon, Chimpanzee, Human, Mouse, Rabbit, Rhesus monkey
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Immunofluorescence: 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/million cells/0.1 mL
Positive control	Monocytes & granulocytes. Lymph nodes and tonsils.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C. Protect fluorescent conjugates from light. Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Immunology, Neuroscience
Cell/tissue expression	Microglia, Monocytes/macrophages, Neutrophils

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF $\text{\textcircled{R}}$ 405S	404/431	405	DAPI (microscopy), AF405	CF$\text{\textcircled{R}}$405S Features
BNC88	CF $\text{\textcircled{R}}$ 488A	490/515	488	GFP, FITC	CF$\text{\textcircled{R}}$488A Features
BNC68	CF $\text{\textcircled{R}}$ 568	562/583	532, 561	RFP, TRITC	CF$\text{\textcircled{R}}$568 Features
BNC94	CF $\text{\textcircled{R}}$ 594	593/614	561	Texas Red $\text{\textcircled{R}}$	CF$\text{\textcircled{R}}$594 Features
BNC40	CF $\text{\textcircled{R}}$ 640R	642/662	633-640	Cy $\text{\textcircled{R}}$ 5	CF$\text{\textcircled{R}}$640R Features
BNC47	CF $\text{\textcircled{R}}$ 647	650/665	633-640	Cy $\text{\textcircled{R}}$ 5	CF$\text{\textcircled{R}}$647 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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