

## 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 $\alpha$ M combines with the Integrin $\beta$ 2 to form a leukocyte-specific integrin referred to as macrophage receptor 1 (Mac-1), or inactivated-C3b (iC3b) receptor 3 (CR3). Integrin $\alpha$ M/ $\beta$ 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<sup>®</sup> dyes and other labels. CF<sup>®</sup> dyes offer exceptional brightness and photostability. See the [CF<sup>®</sup> Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF<sup>®</sup>405S and CF<sup>®</sup>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<sup>®</sup> dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto: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)**

### Product attributes

<b>Antibody number</b>	#0720
<b>Antibody reactivity (target)</b>	CD11b, MAC-1
<b>Antibody type</b>	Primary
<b>Host species</b>	Rat
<b>Clonality</b>	Monoclonal
<b>Clone</b>	M1/70
<b>Isotype</b>	IgG2b, kappa
<b>Molecular weight</b>	95 kDa & 170 kDa
<b>Synonyms</b>	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
<b>Human gene symbol</b>	ITGAM
<b>Entrez gene ID</b>	3684
<b>SwissProt</b>	P11215
<b>Unigene</b>	172631
<b>Immunogen</b>	B10 mouse spleen cells enriched for T lymphocytes
<b>Antibody target cellular localization</b>	Plasma membrane
<b>Expected antibody applications</b>	Flow, surface (published for clone), Functional studies (published for clone), IF (published for clone), IP (published for clone)
<b>Species reactivity</b>	Baboon, Chimpanzee, Human, Mouse, Rabbit, Rhesus monkey
<b>Antibody application notes</b>	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
<b>Positive control</b>	Monocytes & granulocytes. Lymph nodes and tonsils.
<b>Shipping condition</b>	Room temperature
<b>Storage Conditions</b>	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
<b>Shelf life</b>	Guaranteed for at least 24 months from date of receipt when stored as recommended
<b>Regulatory status</b>	For research use only (RUO)
<b>Antibody/conjugate formulation</b>	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
<b>Antibody research areas</b>	Immunology, Neuroscience
<b>Product origin</b>	Product may contain either bovine serum albumin (BSA) from bovine serum ( <i>Bos taurus</i> ), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
<b>Cell/tissue expression</b>	Microglia, Monocytes/macrophages, Neutrophils

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF@405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF@405S Features</a>
BNC88	CF@488A	490/515	488	GFP, FITC	<a href="#">CF@488A Features</a>
BNC68	CF@568	562/583	532, 561	RFP, TRITC	<a href="#">CF@568 Features</a>
BNC94	CF@594	593/614	561	Texas Red®	<a href="#">CF@594 Features</a>
BNC40	CF@640R	642/662	633-640	Cy@5	<a href="#">CF@640R Features</a>
BNC47	CF@647	650/665	633-640	Cy@5	<a href="#">CF@647 Features</a>
BNC74	CF@740	742/767	633-685	775/50	<a href="#">CF@740 Features</a>
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	

Alexa Fluor, Pacific Blue, Pacific Orange, and Texas Red are trademarks or registered trademarks of Thermo Fisher Scientific; Cy is a registered trademark of Cytiva; IRDye, LI-COR, and Odyssey are registered trademarks of LI-COR Bioscience.

## 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)

This datasheet was generated on December 3, 2024 at 09:20:28 AM. Visit product page to check for updated information before use.  
Product link: <https://biotium.com/product/monoclonal-anti-cd11b-m170/>

