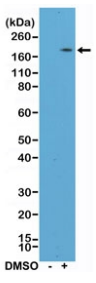
CD11b C-Terminal Antibody RM290 / Recombinant CD11b Antibody [clone RM290] (R20316)

Catalog No.	Formulation	Size
R20316-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

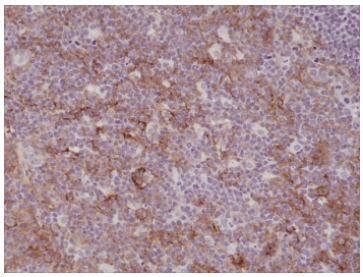
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM290
Purity	Protein A purified from animal origin-free supernatant
UniProt	P11215
Localization	Cell membrane, cytoplasm
Applications	Immunohistochemistry (FFPE): 1:100-1:200 Western Blot: 1:200-1:500
Limitations	This CD11b C-Terminal Antibody RM290 / Recombinant CD11b Antibody is available for research use only.



CD11b C-Terminal Antibody RM290 Western Blot of HL60 Cells. Western blot testing of untreated (-) and DMSO-treated (+) human HL60 cell lysates with clone RM290 at 1:400 dilution. A strong band is detected at approximately 160-170 kDa, within the expected 127-170 kDa range for glycosylated CD11b. The blot shows substantially greater CD11b signal in the DMSO-treated sample than in the untreated sample, consistent with increased CD11b expression following differentiation of HL60 cells. The C-terminal-directed epitope of this recombinant CD11b antibody provides an additional distinction from antibodies directed against other regions of the protein.



CD11b C-Terminal Antibody RM290 in Human Tonsil IHC. Immunohistochemistry testing of formalin-fixed paraffin-embedded human tonsil tissue with clone RM290 at 1:200 dilution. Heat-induced epitope retrieval was performed by steaming sections in pH 6 citrate buffer for 20 min followed by cooling before staining. The image shows widespread membranous and cytoplasmic staining among immune cells within the tonsillar tissue, with heterogeneous staining intensity across the field. This staining demonstrates FFPE tissue detection using the recombinant CD11b antibody.

Description

CD11b C-Terminal Antibody RM290 recognizes CD11b, a leukocyte integrin alpha chain encoded by the ITGAM gene. CD11b is also known as integrin alpha M, MAC-1 alpha subunit, and complement receptor 3 alpha chain. It associates noncovalently with CD18, or integrin beta 2, to form the heterodimeric integrin alpha M beta 2 complex. This receptor is commonly referred to as MAC-1 or complement receptor 3 (CR3) and has important functions in innate immune cell adhesion, migration, phagocytosis, and inflammatory responses.

CD11b is a type I transmembrane glycoprotein composed of a large extracellular region, a single transmembrane segment, and a short intracellular C-terminal region. The extracellular portion participates in ligand recognition and contains the inserted I domain characteristic of the alpha M integrin subunit. Association with CD18 enables conformational regulation of the heterodimer and supports interactions with multiple ligands involved in leukocyte recruitment and immune responses. CD11b is extensively glycosylated, contributing to an apparent molecular weight substantially greater than that predicted from the unmodified polypeptide.

Expression of CD11b is particularly associated with cells of the myeloid lineage, including monocytes, macrophages, neutrophils, and subsets of dendritic cells and natural killer cells. Through MAC-1, CD11b contributes to leukocyte adhesion to vascular endothelium, migration into tissues, recognition of complement-opsonized material, and phagocytic activity. Changes in CD11b expression and integrin activation are therefore widely studied in inflammation, innate immunity, leukocyte biology, and immune cell differentiation.

Unlike antibodies defined primarily by extracellular CD11b epitopes, clone RM290 was generated against a peptide corresponding to the C-terminal region of human CD11b. This provides an epitope-region distinction for studies in which recognition of the C-terminal portion of the protein is desirable. The recombinant monoclonal format also provides a sequence-defined antibody source designed for consistent production.

A CD11b C-Terminal Antibody can be used to investigate expression of the ITGAM-encoded alpha M integrin subunit and provides a C-terminal-directed reagent for studies of CD11b biology.

See our CD11b Antibody ITGAM/3338 page for a monoclonal antibody targeting the ITGAM alpha chain.

Application Notes

The stated application concentrations are suggested starting points. Titration of the CD11b C-Terminal Antibody RM290 / Recombinant CD11b Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide corresponding to the C-terminus of human CD11b (Integrin alpha-M) was used as the immunogen for the recombinant CD11b C-Terminal Antibody RM290.

Storage

Store the CD11b C-Terminal Antibody RM290 at -20oC.

Alternate Names

ITGAM antibody; CD11b antibody; MAC-1 antibody; Integrin Alpha M antibody; CR3 Alpha Chain antibody; Complement Receptor 3 Alpha Chain antibody; Mac-1 Alpha Subunit antibody

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