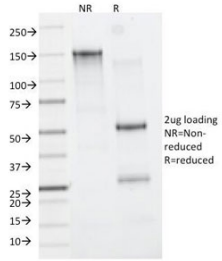
CD11b Antibody / Integrin Alpha M / ITGAM / MAC-1 [clone M1/70] (V2161)

Catalog No.	Formulation	Size
V2161-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2161-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2161SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (11)

Bulk quote request

Species Reactivity	Human, Mouse
Format	Purified
Host	Rat
Clonality	Monoclonal (rat origin)
Isotype	Rat IgG2b, kappa
Clone Name	M1/70
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	3684
Localization	Cell surface, cytoplasm
Applications	Flow Cytometry : 1-2ug/10^6 cells Immunofluorescence : 1-2ug/ml Functional Studies (order BSA/sodium Azide-free Format) :
Limitations	This **CD11b antibody** is available for research use only.



SDS-PAGE Analysis of Purified, BSA-Free CD11b Antibody (clone M1/70). Confirmation of Integrity and Purity of the Antibody.

Description

CD11b antibody targets Integrin Alpha M, a cell surface adhesion molecule encoded by the ITGAM gene and best known as the alpha subunit of the Mac-1 integrin complex. Integrin Alpha M is a single-pass transmembrane protein predominantly localized to the plasma membrane of myeloid lineage cells, where it pairs with Integrin Beta 2 to form a functional heterodimer. CD11b is highly expressed on monocytes, macrophages, neutrophils, dendritic cells, and certain natural killer cell subsets, making it a central marker for innate immune cell identification and characterization.

Functionally, Integrin Alpha M plays a key role in leukocyte adhesion, migration, and immune activation. Through interactions with ligands such as complement components, extracellular matrix proteins, and endothelial adhesion molecules, CD11b regulates processes including firm adhesion to vascular endothelium, transmigration into tissues, and phagocytosis. A short functional summary is that CD11b integrates adhesive and signaling functions that enable myeloid cells to respond effectively during inflammation and immune surveillance.

At the molecular level, Integrin Alpha M contains a large extracellular domain responsible for ligand binding, a transmembrane region, and a short cytoplasmic tail involved in intracellular signaling and cytoskeletal linkage. Conformational changes within the integrin complex regulate affinity states and downstream signaling responses. CD11b antibody reagents are therefore widely used to study integrin activation, cell adhesion dynamics, and immune cell trafficking in both resting and activated states.

From an immunological and disease relevance perspective, CD11b expression is closely associated with inflammatory responses, infection, autoimmune disease, and tumor associated myeloid cell populations. Changes in CD11b expression or activation status are frequently examined in models of chronic inflammation, cancer immunology, and immune suppression. Because of its broad and well-characterized role in myeloid biology, CD11b has become one of the most extensively studied surface markers in immunology research. Clone M1/70 is a well-established reagent that has been widely used across decades of immune cell studies, contributing to its strong recognition and trust within the research community.

Developmentally, CD11b expression increases as myeloid cells mature and acquire effector functions. Its sustained surface expression reflects functional readiness for adhesion and migration. Clone M1/70 is designed to recognize Integrin Alpha M and support consistent detection of CD11b in research applications. CD11b antibodies from NSJ Bioreagents are supplied for research use to support studies in immunophenotyping, inflammation, and innate immune signaling.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the CD11b antibody to be titered up or down for optimal performance.

Immunogen

B10 mouse spleen cells enriched for T lymphocytes were used as the immunogen for this CD11b antibody.

Storage

Store the CD11b antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Granulocyte marker

References (2)