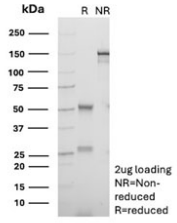
CD18 Antibody 68-5A5 / Mouse Monoclonal [clone 68-5A5] (V2645)

Catalog No.	Formulation	Size
V2645-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2645-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2645SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (6)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	68-5A5
Purity	Protein G affinity chromatography
UniProt	P05107
Localization	Cell surface
Applications	Flow cytometry: 1-2ug/10^6 cells Immunofluorescence: 1-2ug/ml
Limitations	This CD18 Antibody 68-5A5 is available for research use only.



CD18 Antibody 68-5A5 Gel Run. SDS-PAGE Analysis of Purified, BSA-Free CD18 Antibody (clone 68-5A5). Confirmation of Integrity and Purity of the Antibody.

Description

CD18 Antibody 68-5A5 recognizes CD18, a leukocyte cell-surface glycoprotein encoded by the ITGB2 gene and also known as integrin beta 2. CD18 serves as the common beta chain of the beta 2 integrin family and associates noncovalently with different CD11 alpha subunits. Pairing with CD11a, CD11b, CD11c, or CD11d produces distinct heterodimeric adhesion receptors involved in immune cell interactions and leukocyte trafficking.

CD18 is a type I transmembrane protein containing a large extracellular region, a single transmembrane segment, and a short cytoplasmic tail. Association with CD11a forms LFA-1, while pairing with CD11b produces Mac-1 and association with CD11c produces complement receptor 4. These receptors recognize ligands including members of the intercellular adhesion molecule family, complement components, and other extracellular proteins. Their activity is regulated through conformational changes that control ligand affinity and receptor-mediated signaling.

Beta 2 integrins have central roles in leukocyte adhesion, migration, immune synapse formation, phagocytosis, and inflammatory responses. LFA-1 interactions with ICAM proteins contribute to firm leukocyte adhesion and communication between immune cells, while other CD18-containing integrins participate in complement recognition and phagocytic functions. Bidirectional signaling through these receptors also connects extracellular adhesive interactions with intracellular cytoskeletal and signaling pathways.

Clone 68-5A5 has been used in published research examining CD18-dependent cellular interactions. The antibody has been reported to inhibit CD18-mediated adhesion, providing a useful historical distinction for this established clone. These published functional observations describe experimental use of clone 68-5A5 and are distinct from the applications independently validated for this product. The antibody should therefore not be interpreted as NSJ-validated for functional or blocking studies based solely on these literature reports.

ITGB2 function is essential for normal leukocyte recruitment and host defense. Pathogenic variants affecting CD18 can cause leukocyte adhesion deficiency type I, in which defective beta 2 integrin expression or activity impairs firm leukocyte adhesion and migration from the circulation into tissues. CD18 is consequently studied in inflammation, immune cell trafficking, leukocyte activation, and disorders involving altered immune adhesion.

A CD18 Antibody such as clone 68-5A5 provides a monoclonal reagent for investigating the shared ITGB2 beta chain and beta 2 integrin biology.

For a broader CD18-focused reagent, see our CD18 Antibody / ITGB2 Polyclonal Antibody page.

Application Notes

Optimal dilution of the CD18 Antibody 68-5A5 should be determined by the researcher.

Immunogen

Stimulated human leukocytes were used as the immunogen for the CD18 Antibody 68-5A5.

Storage

Store the CD18 Antibody 68-5A5 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

ITGB2 antibody, CD18 antibody, LFA-1 Beta Chain antibody, Leukocyte Integrin Beta 2 antibody, Complement Receptor Beta Chain antibody

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