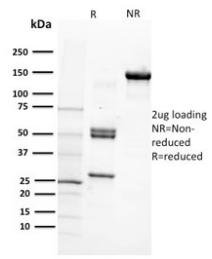
CD29 Antibody 12G10 / Integrin beta 1 Mouse Monoclonal [clone 12G10] (V7892)

Catalog No.	Formulation	Size
V7892-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7892-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7892SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	12G10
Purity	Protein G affinity chromatography
UniProt	P05556
Applications	ELISA: order BSA-free format for coating
Limitations	This CD29 Antibody 12G10 is available for research use only.



CD29 Antibody 12G10 Gel Run. SDS-PAGE analysis of purified, BSA-free CD29 antibody (clone 12G10) as confirmation of integrity and purity.

Description

CD29 antibody 12G10 detects integrin beta-1, a transmembrane receptor encoded by the ITGB1 gene. CD29 forms

heterodimers with various alpha integrin subunits to mediate adhesion to extracellular matrix proteins such as fibronectin, collagen, and laminin. These integrin complexes transmit mechanical and chemical signals that regulate migration, proliferation, and survival. Because of its broad roles in development, tissue homeostasis, and cancer, CD29 antibody is a versatile reagent in cell biology, immunology, and oncology research.

CD29 is a 130 kDa glycoprotein consisting of a large extracellular domain, a single transmembrane region, and a cytoplasmic tail that interacts with cytoskeletal and signaling proteins. Its ability to partner with multiple alpha subunits generates integrin receptors with diverse ligand-binding specificities. This diversity enables integrin beta-1 to function in embryonic development, wound healing, immune responses, and tumor invasion. By linking extracellular matrix engagement to intracellular signaling, CD29 acts as a central hub of cell-matrix communication.

The CD29 antibody clone 12G10 provides reliable and specific recognition. Clone 12G10 has been cited in peer-reviewed publications investigating integrin signaling, cancer cell invasion, and immune cell migration. It has been particularly valuable in studies requiring functional modulation of integrin beta-1, as this clone has been used not only for detection but also for probing integrin activation states. Its reproducibility makes it suitable for flow cytometry, immunohistochemistry, and cell adhesion assays.

Research using clone 12G10 has shown how integrin beta-1 is essential for maintaining stem cell niches, promoting angiogenesis, and enabling metastatic spread of cancer cells. In immunology, CD29 supports T-cell trafficking and leukocyte migration into inflamed tissues. In regenerative medicine, it contributes to tissue repair by mediating cell adhesion and signaling. These findings underscore the versatility of CD29 as a biomarker and therapeutic target across diverse biological systems.

NSJ Bioreagents supplies this CD29 antibody to support studies in integrin biology, cancer, and immunology. Alternate names include integrin beta-1 antibody, ITGB1 antibody, very late antigen beta subunit antibody, ECM adhesion receptor antibody, and fibronectin receptor beta chain antibody.

For an additional monoclonal reagent targeting integrin beta 1, see our ITGB1 Antibody ITGB1/3613 / CD29 Monoclonal Antibody page.

Application Notes

Optimal dilution of the CD29 Antibody 12G10 should be determined by the researcher.

Immunogen

Purified human beta 1 integrin from HT1080 fibrosarcoma cell extract was used as the immunogen for this CD29 Antibody 12G10.

Storage

Store the CD29 Antibody 12G10 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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