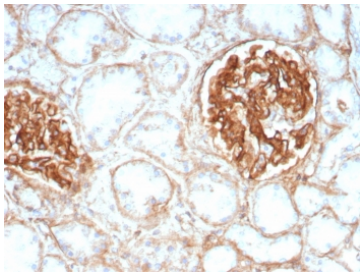
CD29 Antibody ITGB1/8744R / Recombinant ITGB1 Antibody [clone ITGB1/8744R] (V4073)

Catalog No.	Formulation	Size
V4073-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4073-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4073SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

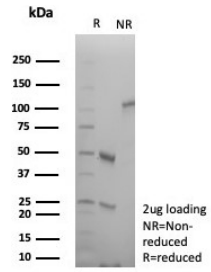
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	ITGB1/8744R
Purity	Protein A/G affinity
UniProt	P05556
Localization	Cell Surface
Applications	ELISA (Order BSA-free format for coating) Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This CD29 Antibody ITGB1/8744R / Recombinant ITGB1 Antibody is available for research use only.



CD29 Antibody ITGB1/8744R in Human Kidney IHC. Immunohistochemistry testing of FFPE human kidney tissue with CD29 antibody clone ITGB1/8744R. HIER was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling before testing. The image shows strong staining of renal structures with prominent membranous and cytoplasmic labeling. This tissue staining demonstrates detection of integrin beta 1 using the Recombinant ITGB1 Antibody.



Purified CD29 Antibody ITGB1/8744R SDS-PAGE. SDS-PAGE analysis of purified, BSA-free CD29 antibody clone ITGB1/8744R confirms the integrity and purity of the antibody preparation. The gel shows the expected immunoglobulin migration pattern for the purified recombinant rabbit monoclonal antibody. This analysis provides a quality assessment of the purified Recombinant ITGB1 Antibody preparation.

Description

CD29 Antibody ITGB1/8744R recognizes integrin beta 1, a transmembrane adhesion receptor subunit encoded by the ITGB1 gene. Integrin beta 1 is commonly designated CD29 and associates with numerous alpha integrin subunits to generate heterodimeric receptors with distinct ligand-binding properties. These beta 1-containing integrins mediate interactions between cells and extracellular matrix proteins and play central roles in cellular adhesion, migration, signaling, and tissue organization.

Integrin beta 1 is a type I transmembrane glycoprotein consisting of a large extracellular region, a single transmembrane segment, and a relatively short cytoplasmic tail. Pairing with different alpha subunits generates receptors capable of recognizing extracellular matrix components including fibronectin, collagen, and laminin. CD29 serves as the common beta chain of several integrins historically designated very late antigen (VLA) receptors.

ITGB1-containing integrins support bidirectional signaling across the plasma membrane. Intracellular signals can regulate extracellular ligand-binding affinity through inside-out signaling, while ligand engagement can initiate outside-in signaling through interactions with cytoskeletal and signaling proteins. These processes influence cell spreading, migration, proliferation, differentiation, survival, and responses to mechanical properties of the extracellular environment.

CD29 is broadly expressed across epithelial, endothelial, stromal, hematopoietic, and other cell populations. Alterations in integrin beta 1 expression or signaling are investigated in cancer biology because ITGB1-containing receptors can influence tumor cell adhesion, migration, invasion, survival, and interactions with the tumor microenvironment. CD29 is also studied in immune cell trafficking, tissue development, wound repair, stem cell biology, and mechanisms regulating cell-matrix communication.

Clone ITGB1/8744R is a recombinant monoclonal antibody directed against human integrin beta 1. Its recombinant format provides a sequence-defined antibody source and distinguishes this reagent from conventionally produced monoclonal and polyclonal antibodies targeting CD29.

A CD29 Antibody can be used to investigate expression and localization of integrin beta 1, while a Recombinant ITGB1 Antibody provides a sequence-defined reagent for studies of this widely expressed adhesion receptor subunit.

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 ITGB1/8744R / Recombinant ITGB1 Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the CD29 Antibody ITGB1/8744R.

Storage

Aliquot the CD29 Antibody ITGB1/8744R and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

ITGB1 antibody, Integrin Beta 1 antibody, Fibronectin Receptor Beta Subunit antibody, VLA Beta Chain antibody, Very Late Antigen Beta Chain antibody

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