

Integrin alpha 2b beta 3 Heterodimer Recombinant Protein | ITGA2B recombinant protein

Human Integrin alpha 2b beta 3 Heterodimer Protein (I874S, DYKDDDDK & His Tag)

CATALOG #
AAA259282

HOST
HEK293 Cells

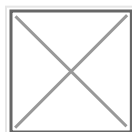
PRODUCT SYNONYMS

Integrin alpha 2b beta 3 Heterodimer; Human Integrin alpha 2b beta 3 Heterodimer Protein (I874S; DYKDDDDK & His Tag); ITGA2B recombinant protein

PRODUCT SPECIFICATIONS

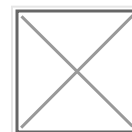
Host	HEK293 Cells
Purity/Purification	>= 90% as determined by SDS-PAGE.
Form/Format	Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Species	Human
Predicted N Terminal	Leu 32 & Gly 27
Endotoxin	<1.0 EU per ug protein as determined by the LAL method.
Protein Construction	A DNA sequence encoding the human ITGA2B (P08514-1)(Met1-Arg993, I874S) was fused with a DYKDDDDK tag at the C-terminus, constructed the plasmid 1; A DNA sequence encoding the human ITGB3 (P05106-1)(Met1-Asp718) was expressed with a polyhistidine tag at the C-terminus, constructed the plasmid 2. The two plasmids were co-expressed and the Integrin alpha 2b beta 3 Heterodimer was purified.
Activity	Immobilized Anti-GPIIb/IIIa Antibody (IgG1-Fab) at 2 ug/mL (100 uL/well) can bind Recombinant Human Integrin alpha 2b beta 3 Heterodimer Protein (DYKDDDDK & His Tag) , the EC50 is 18-54 ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



Application Data

Immobilized Anti-GPIIb/IIIa Antibody (IgG1-Fab) at 2 ug/mL (100 uL/well) can bind Recombinant Human Integrin alpha 2b beta 3 Heterodimer Protein (DYKDDDDK & His Tag) (#AAA259282), the EC50 is 18-54 ng/mL.



Application Data

ADDITIONAL INFORMATION

Related Product Information for ITGA2B recombinant protein	Integrin alpha 2b beta 3 (also GPIIb/IIIa) is a key platelet integrin, a noncovalent heterodimer of type I transmembrane subunits alpha 2b/CD41 and beta3/CD61. Capable of binding fibrinogen in its active state, its alpha and beta subunits each comprise a ligand-binding extracellular domain, a single-pass transmembrane helix, and a cytoplasmic tail with binding sites for intracellular proteins. Upon agonist stimulation, alphaIIb beta3 accepts its extended-open (activated) conformation, increasing its matrix protein RGD motif ligand affinity, subsequently facilitating platelet spreading, platelet aggregation, and thrombus formation. Deficiencies lead to lifelong bleeding diathesis as seen in Glanzmann thrombasthenia. alphaIIb beta3-targeting therapeutic antibodies can inhibit thrombi formation in patients with acute coronary syndrome, and potentially inhibit tumor angiogenesis and metastasis by blocking interaction of platelet alphaIIb beta3 with tumor cells.
References	1. Huang, J., et al. Platelet integrin alphaIIb beta3: signal transduction, regulation, and its therapeutic targeting. J Hematol Oncol, 2019. https://doi.org/10.1186/s13045-019-0709-6 2. Xin, H., et al. Structure, signal transduction, activation, and inhibition of integrin alphaIIb beta3. Thrombosis J, 2023. https://doi.org/10.1186/s12959-023-00463-w 3. van den Kerkhof DL, et al. Exogenous Integrin alphaIIb beta3 Inhibitors Revisited: Past, Present and Future Applications. Int J Mol Sci, 2021. doi: 10.3390/ijms22073366 4. Collier BS. alphaIIb beta3: structure and function. J Thromb Haemost. 2015 Jun;13 Suppl 1(Suppl 1):S17-25. doi: 10.1111/jth.12915

NCBI AND UNIPROT INFORMATION

NCBI GI #	88758615
NCBI GeneID	3674
NCBI Accession #	NP_000410.2
NCBI GenBank Nucleotide #	NM_000419.3
UniProt Accession #	P08514; P05106
Molecular Weight	1039
NCBI Official Full Name	integrin alpha-IIb preproprotein
NCBI Official Synonym Full Names	integrin, alpha 2b (platelet glycoprotein IIb of IIb/IIIa complex, antigen CD41)
NCBI Official Symbol	ITGA2B
NCBI Official Synonym Symbols	GT; GTA; CD41; GP2B; HPA3; CD41B; GPIIb; BDPLT2; BDPLT16
NCBI Protein Information	integrin alpha-IIb; GPalpha IIb; platelet-specific antigen BAK; platelet membrane glycoprotein IIb; platelet fibrinogen receptor, alpha subunit
UniProt Protein Name	Integrin alpha-IIb
UniProt Gene Name	ITGA2B
UniProt Synonym Gene Names	GP2B; ITGAB; GPIIb
UniProt Entry Name	ITA2B_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.