

Recombinant Rat Integrin beta-1(Itgb1) ,partial

Catalog No: #AP70456

Package Size: #AP70456-1 20ug #AP70456-2 100ug #AP70456-3 1mg

Description

Product Name	Recombinant Rat Integrin beta-1(Itgb1) ,partial
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:21-729aaSequence Info:Extracellular Domain
Other Names	Beta oligodendroglia ;Beta OLFibronectin receptor subunit betaVLA-4 subunit beta; CD29
Accession No.	P49134
Calculated MW	94.4 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	QTDKNRCLKANAKSCGECIQAGPNCGWCTNTTFLQEGMPTSARCDLEALKKKKGCHPSDIENPRGSQTIKKN KNVTNRSGMAEKLRPEDITQIQPQQLLLKLRSGEPQKFTLKFRAEDYPIDLYYLMDSLYSMKDDLENVKSLG TDLNMEMRRITSDFRIGFGSFVEKTVMPYISTTPAKLRNPCTSEQNCTSPFSYKNVLSLTDRGEFFNELVGQQ RISGNLDSPEGGFDAIMQVAVCGSLIGWRNVTRLLVFSTDAGFHAGDGKLGIVLPNDGQCHLENNVYTMS HYDYPSIAHLVQKLSENNIQTIFAVTEEFQPVYKELKNLIPKSAVGTLSGNSSNVIQLIIDAYNSLSSEVILENSK LPDGVNTINYKSYCKNGVNGTGNGRKCNSISIGDEVQFEISITANKCPNKESENQLKLNPLGFTEEVEVVLQFIC KCNCQSHGIPASPKCHEGNGTFECGACRCNEGRVGRHCECSTDEVNSEDMDAYCRKENSSEICSNNGECV CGQCVCVRKRENTNEIYSGKFCECDNFNCDRSNGLICGGNGVCRCRVCECYPNYTGSACDCSLDTPVCVATN GQICNGRGICECGACKCTDPKFQGPCTCETCQTCGLGVCAEHKECVQCRAFNGKEKDTCAQECSHFNLTKVE SREKLPPQPVQVDPVTHCKEKDIDDCWFYFTYSVNSKGEAHVHVETPDCPTGPD
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

Integrins alpha-1,beta-1, alpha-2,beta-1, alpha-10,beta-1 and alpha-11,beta-1 are receptors for collagen. Integrins alpha-1,beta-1 and alpha-2,beta-2 recognize the proline-hydroxylated sequence G-F-P-G-E-R in collagen. Integrins alpha-2,beta-1, alpha-3,beta-1, alpha-4,beta-1, alpha-5,beta-1, alpha-8,beta-1, alpha-10,beta-1, alpha-11,beta-1 and alpha-V,beta-1 are receptors for fibronectin. Alpha-4,beta-1 recognizes one or more domains within the alternatively spliced CS-1 and CS-5 regions of fibronectin. Integrin alpha-5,beta-1 is a receptor for fibrinogen. Integrin alpha-1,beta-1, alpha-2,beta-1, alpha-6,beta-1 and alpha-7,beta-1 are receptors for laminin. Integrin alpha-4,beta-1 is a receptor for VCAM1 and recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-9,beta-1 is a receptor for VCAM1, cytotactin and osteopontin. It recognizes the sequence A-E-I-D-G-I-E-L in cytotactin. Integrin alpha-3,beta-1 is a receptor for epiligrin, thrombospondin and CSPG4. Integrin alpha-3,beta-1 provides a docking site for FAP (seprase) at invadopodia plasma mbranes in a collagen-dependent manner and hence may participate in the adhesion, formation of invadopodia and matrix degradation processes, promoting cell invasion. Alpha-3,beta-1 may mediate with LGALS3 the stimulation by CSPG4 of endothelial cells migration. Integrin alpha-V,beta-1 is a receptor for vitronectin. Beta-1 integrins recognize the sequence R-G-D in a wide array of ligands. When associated with alpha-7,beta-1 integrin, regulates cell adhesion and laminin matrix deposition. Involved in promoting endothelial cell motility and angiogenesis. Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assbly process and the formation of

mineralized bone nodules. May be involved in up-regulation of the activity of kinases such as PKC via binding to KRT1. Together with KRT1 and GNB2L1, serves as a platform for SRC activation or inactivation. Plays a mechanistic adhesive role during telophase, required for the successful completion of cytokinesis.

References

Cloning and sequence of the cDNA encoding the rat oligodendrocyte integrin beta 1 subunit. Malek-Hedayat S., Rome L.H. Gene 158:287-290(1995) Research Topic: Others

Note: This product is for in vitro research use only and is not intended for use in humans or animals.