Active Recombinant Human ITGAV & ITGB5 protein, His-tagged

Cat. No. ITGAV & ITGB5-344H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human ITGAV & ITGB5 Heterodimer Protein is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Val 992 (ITGAV) & Gly 24 - Asn 719 (ITGB5) (Accession # NP_002201 (ITGAV) & AAH06541 (ITGB5)).
Species	Human
Source	HEK293
ProteinLength	Phe 31 - Val 992 (ITGAV) & Gly 24 - Asn 719 (ITGB5)
Description	Integrin alpha V beta 5 (ITGAV & ITGB5 or ITGAVB5) is expressed on a wide variety of cell types including keratinocytes, fibroblasts, adhesive monocytes, embryonic stem cells, and select endothelium and epithelium. ITGAV & ITGB5 binds ligands containing an RGD motif, notably vitronectin. Growth factors that increase PKC activity, such as VEGF or TGF alpha, promote ITGAVB5-mediated angiogenesis while alpha V beta 3, which may be expressed in the same cell, responds to FGF-basic and TNF alpha. An inhibitor of both down regulates tumor angiogenesis. During lung inflammation, up regulation of ITGAVB5 on myofibroblasts or infiltrating lymphocytes may contribute to fibrosis by freeing TGF beta from latency.
Predicted N Terminal	Phe 31 (ITGAV) & Gly 24 (ITGB5)
Form	Lyophilized from 0.22 μm filtered solution in PBS, pH7.4, 10% trehalose.

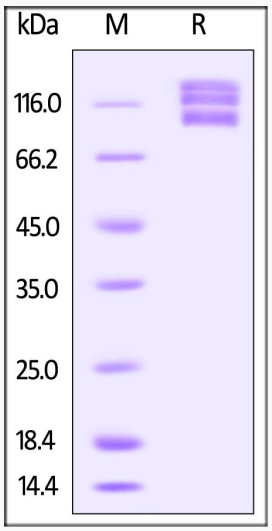
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Bio-activity	Measured by its binding ability in a functional ELISA. Immobilized Human vitronectin at 5μg/mL (100 μL/well) can bind Human ITGAVB5, His Tag with a linear range of 0.1-4 μg/mL.
Molecular Mass	Human ITGAV & ITGB5 Heterodimer Protein, produced by co-expression of ITGAV and ITGB5, has a calculated MW of 113 kDa (ITGAV) and 81.9 kDa (ITGB5). Subunit ITGAV is fused with polyhistidine tag at the C-terminus and followed by a acidic tail and subunit ITGB5 contains no tag but a basic tail at the C-terminus. The reducing (R) protein migrates as 145 kDa (ITGAV) and 100-116 kDa (ITGB5) respectively due to glycosylation.
Endotoxin	Less than 1.0 EU per μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20°C or lower. Please avoid repeated freeze-thaw cycles. No activity loss is observed after storage at: 4-8°C for 12 months in lyophilized state; -70°C for 3 months under sterile conditions after reconstitution.
Storage buffer	PBS, pH7.4
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4℃ before opening to recover the entire contents.
Shipping	Powder,RT

GENE INFORMATION

Gene Name	ITGB5 integrin subunit beta 5 [Homo sapiens (human)]

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Official Symbol	ITGAV; ITGB5
Synonyms	testis secretory sperm-binding protein Li 217p; CD51; MSK8; VNRA; VTNR; ITGAV; antigen identified by monoclonal antibody L230; integrin alphaVbeta3; integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51); vitronectin receptor subunit alpha
Gene ID	3693
mRNA Refseq	NM_002213.4
Protein Refseq	NP_002204.2
UniProt ID	P18084
SDS-PAGE	 Human ITGAV & ITGB5 Heterodimer Protein on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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