

Active Recombinant Human ITGAV & ITGB8 protein, His-tagged

Cat. No. ITGAV & ITGB8-343H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human ITGAV & ITGB8 Heterodimer Protein is expressed from human 293 cells (HEK293). It contains AA Phe 31 - Val 992 (ITGAV) & Glu 43 - Arg 684 (ITGB8) (Accession # NP_002201 (ITGAV) & NP_002205 (ITGB8)).
Species	Human
Source	HEK293
ProteinLength	Phe 31 - Val 992 (ITGAV) & Glu 43 - Arg 684 (ITGB8)
Description	Integrin alpha V beta 8 (ITGAV & ITGB8 or ITGAVB8) is expressed in yolk sac, placenta, brain perivascular astrocytes, Schwann cells, renal glomerular mesangial cells and pulmonary epithelial cells. Unlike other alpha V integrins, ITGAVB8 does not appear to assume different activation states, and the cytoplasmic tail does not connect to the cytoskeleton. It binds ligands containing an RGD motif, including vitronectin, fibrin and the latency associated peptide (LAP) of the latent TGF-beta complex. High affinity binding of alpha V beta 8 to LAP allows proteolytic cleavage by MT1-MMP, which releases active TGF-beta. This mechanism differs from that of alpha V beta 6, the other alpha V integrin which can activate TGF-beta from latency through non-proteolytic mechanisms. Downstream effects of TGF-beta activation include control of cell growth and associated vascularization.
Predicted N Terminal	Phe 31 (ITGAV) & Glu 43 (ITGB8)

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

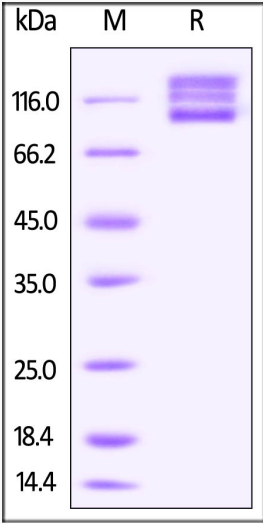
Form	Lyophilized from 0.22 µm filtered solution in Tris, NaCl and MgCl ₂ , 10% trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. Immobilized Human ITGAVB8, His Tag at 5µg/mL (100 µL/well) can bind biotinylated Human TGF-Beta 1 / TGFB1, His Tag & Avi Tag with a linear range of 1-25 ng/mL.
Molecular Mass	Human ITGAV & ITGB8 Heterodimer Protein, produced by co-expression of ITGAV and ITGB8, has a calculated MW of 113 kDa (ITGAV) and 75.5 kDa (ITGB8). Subunit ITGAV is fused with polyhistidine tag at the C-terminus and followed by a acidic tail and subunit ITGB8 contains no tag but a basic tail at the C-terminus. The reducing (R) protein migrates as 145 kDa (ITGAV) and 100-116 kDa (ITGB8) 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	Tris, NaCl and MgCl ₂
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°C before opening to recover the entire contents.
Shipping	Powder,RT

GENE INFORMATION

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Gene Name	ITGB8 integrin subunit beta 8 [Homo sapiens (human)]
Official Symbol	ITGAV; ITGB8
Synonyms	integrin beta-8; 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	3696
mRNA Refseq	NM_002214.2
Protein Refseq	NP_002205.1
UniProt ID	P26012
SDS-PAGE	 Human ITGAV & ITGB8 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%.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA