Recombinant Human Endoglin/CD105 Protein (Fc Tag)

Catalog Number: PKSH031832

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description		
Species	Human	
Source	HEK293 Cells-derived Human Endoglin/CD105 protein Met 1-Gly 586, with an C-	
	terminal hFc	
Calculated MW	87.5 kDa	
Observed MW	115-120 kDa	
Accession	NP_001108225.1	
Bio-activity	1. Measured by its ability to bind biotinylated Human TGFRB1 in a functional ELISA.	
	2. Measured by its ability to bind biotinylated Human ALK1-Fc in functional Elisa.	
Properties		
Purity	> 95 % as determined by reducing SDS-PAGE.	
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.	
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -8	
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of	
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.	
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.	
Formulation	Lyophilized from sterile PBS, pH 7.4	
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants	
	before lyophilization.	
	Please refer to the specific buffer information in the printed manual.	
Reconstitution	Please refer to the printed manual for detailed information.	
Data		

KDa	М	R
212 158	-	_
97.4 66.4	_	
55.6 42.7		
34.6	-	
27.0	-	
20.0	-	
14.4	_	

> 95 % as determined by reducing SDS-PAGE.

Background

Elabscience®

Endoglin, also known as CD105, is a type I homodimeric transmembrane glycoprotein with a large, disulfide-linked, extracellular region and a short, constitutively phosphorylated cytoplasmic tail. Endoglin contains an RGD tripeptide which is a key recognition structure in cellular adhesion, suggesting a critical role for endoglin in the binding of endothelial cells to integrins and/or other RGD receptors. Endoglin is highly expressed on vascular endothelial cells, chondrocytes, and syncytiotrophoblasts of term placenta. It is also found on activated monocytes, mesenchymal stem cells and leukemic cells of lymphoid and myeloid lineages. As an accessory receptor for the TGF- β superfamily ligands, endoglin binds TGF- β 1 and TGF- β 3 with high affinity not by itself but by associating with TGF- β type II receptor (T β RII) and activates the downstream signal pathways. In addition, in human umbilical vein endothelial cells, ALK-1 is also a receptor kinase for endoglin threonine phosphorylation, and mutations in either of the two genes result in the autosoma I-dominant vascular dysplasia, hereditary hemorrhagic telangiectasia (HHT). Endoglin has been regarded as a powerful biomarker of neovascularization, and is associated with several solid tumor types.