Recombinant Human Endoglin/ENG/CD105 Protein

Catalog No.: RP01413

Sequence Information

Species
Human

Gene ID
2022

Swiss Prot
P17813

Tags
C-His

Synonyms
END,HHT1,ORW1,CD105,ENG, endoglin

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
61.59 kDa

Observed MW
75-80 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

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-β1 and TGF-β3 with high affinity not by itself but by associating with TGF-β type II receptor (TβRII) 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 autosomal-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.

Basic Information

Description
Recombinant Human Endoglin/ENG/CD105 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Glu26-Gly586) of human Endoglin/CD105 (Accession #NP_001108225.1) fused with a 6×His tag at the C-terminus.

Activity
1.Measured by its binding ability in a functional ELISA. Immobilized Human CD105 at 2 μg/mL (100 μL/well) can bind Human ACVR2B with a linear range of 0.01-1.35 μg/mL.
2.Measured by its binding ability in a functional ELISA. Immobilized Human CD105 at 2 μg/mL (100 μL/well) can bind Human TGFBR2 with a linear range of 0.01-1.72 μg/mL.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

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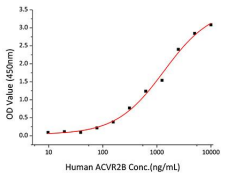
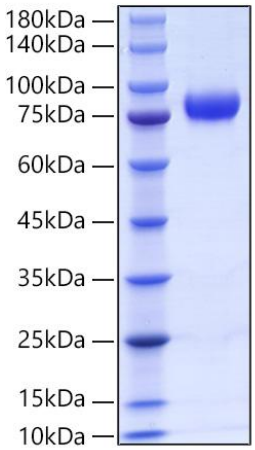
For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

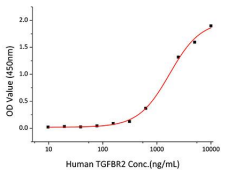
Validation Data



Immobilized Human CD105 at 2μg/mL (100 μL/well) can bind Human ACVR2B with a linear range of 0.01-1.35μg/mL.



Recombinant Human Endoglin/ENG/CD105 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Immobilized Human CD105 at 2μg/mL (100 μL/well) can bind Human TGFBR2 with a linear range of 0.01-1.72μg/mL.