

Recombinant Human Endoglin,Sf9

Cat. No. ENG-133H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human CD5 extracellular domain produced in baculovirus is a homodimeric, glycosylated, Polypeptide containing 586 amino acids and having a molecular mass of 61 kDa, but as a result of glycosylation, migrates at 90 kDa under reducing conditions in SDS-PAGE. The CD-105 is purified by proprietary chromatographic techniques.

Species

Human

Source

Sf9 Cells

Description

Endoglin is a type I membrane glycoprotein located on cell surfaces and is part of the TGF beta receptor complex. The protein consists of a homodimer of 180 kDa with disulfide links. It has been found on endothelial cells, activated macrophages, fibroblasts, and smooth muscle cells. Endoglin has been found to be part of the TGF-beta1 receptor complex. It thus may be involved in the binding of TGF-beta1, TGF-beta3, activin-A, BMP-2, and BMP-7. Beside TGF-beta signaling endoglin may have other functions. It has been postulated that endoglin is involved in the cytoskeletal organization affecting cell morphology and migration. Endoglin has a role in the development of the cardiovascular system and in vascular remodeling. Its expression is regulated during heart development. Experimental mice without the endoglin gene die due to cardiovascular abnormalities.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

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Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	Endoglin was lyophilized from a concentrated (1 mg/ml) sterile solution containing no additives.
Solubility	It is recommended to reconstitute the lyophilized CD-105 in sterile PBS not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.
Specific activity	Measured by its ability to bind with rhTGF-beta RII/Fc in a functional ELISA. Optimal dilutions should be determined by each laboratory for each application.
Stability	Lyophilized Endoglin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CD105 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	ENG endoglin [Homo sapiens]
Synonyms	ENG; endoglin; END; endoglin 1; CD105; CD105 antigen; CD_antigen=CD105; ORW; ORW1; FLJ41744; HHT1; Osler-Rendu-Weber syndrome 1; OTTHUMP00000022221
Gene ID	2022
mRNA Refseq	NM_000118
Protein Refseq	NP_000109

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MIM	131195
UniProt ID	P17813
Chromosome Location	9q33-q34.1
Function	activin binding; galactose binding; glycosaminoglycan binding; glycosaminoglycan binding; protein binding; contributes_to protein binding; protein homodimerization activity IEA transforming growth factor beta binding IEA transforming growth factor beta receptor, cytoplasmic mediator activity; transmembrane receptor activity; type I transforming growth factor beta receptor binding; type I transforming growth factor beta receptor binding; type II transforming growth factor beta receptor binding; type II transforming growth factor beta receptor binding