



Endoglin, His Tag, mouse recombinant (rmEndoglin-His)

Catalog No: 94973
Lot No: XXXXX
Source: Insect cells
Synonyms: CD105, ENG, END, ORW, HHT1, ORW1, FLJ41744, Cell surface MJ7/18 antigen, Endoglin

Background

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.

Description

CD105 mouse recombinant extracellular domain produced in baculovirus is a homodimeric, glycosylated, polypeptide containing 581 amino acids and having a molecular mass of 61 kDa but as a result of glycosylation, migrates at 75-85 kDa under reducing conditions in SDS-PAGE. Based on N-terminal sequence analysis, the primary structure of recombinant mature Endoglin starts at Glu 26. CD105 is fused to a C-terminal His Tag (6xHis) and purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

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.

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.

Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

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**Amino Acid Sequence**

MDRGVLPPLPI TLLFVIYSFV PTTGLAERVG CDLQPVDPTR GEVTFFTTSQV SEGCVAQAAN AVREHVHVLFL DFPGMLSHLE
LTLQASKQNG TETQEVFLVL VSNKNVFKF QAPEIPLHLA YDSSLVIFQG QPRVNITVLP SLTSRKQILD WAATKGAITS
IAALDDPQSI VLQLGQDPKA PFLCLPEAHK DMGATLEWQP RAQTPVQSCR LEGVSGHKEA YILRILPGSE AGPRTVTVM
ELSCTSGDAI LILHGPPYVS WFIDINHSMQ ILTTGEYSVK IFPGSKVKGV ELPDTPQGLI AEARKLNASI VTSFVELPLV
SNVSLRASSC GGVFQTPAP VVTTPPKDTC SPVLLMSLIQ PKCGNQVMTL ALNKKHVQTL QCTITGLTFW DSSCQAEDTD
DHLVLSSAYS SCGMKVTAHV VSNEVIISFP SGSPPLRKKV QCIDMDSLFS QLGLYLSPHF LQASNTIELG QQAFVQVSVS
PLTSEVTVQL DSCHLDLGPE GDMVELIQSR TAKGSCVTL SPSPEGDPFR SFLLRVYMP TPTAGTSLCN LALRPSTLSQ
EVYKTVSMRL NIVSPDLS

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.

Usage

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