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## 32-1147: mEndoglin Recombinant Protein

Alternative Name: CD105,ENG,END,ORW,HHT1,ORW1,FLJ41744,Cell surface MJ7/18 antigen,Endoglin.

## **Description**

Source: Insect Cells. 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. The CD105 is fused to a C-terminal His-tag (6xHis) and purified by proprietary chromatographic techniques. 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.

## **Product Info**

Amount:  $10 \mu g$ 

**Purification:** Greater than 95.0% as determined by(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE. **Content:** Endoglin was lyophilized from a concentrated (1mg/ml) sterile solution containing no additives.

Lyophilized Endoglin although stable at room temperature for 3 weeks, should be stored

**Storage condition :** 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.

Amino Acid: MDRGVLPLPITLLFVIYSFVPTTGLAERVGCDLQPVDPTRGEVT

FTTSQVSEGCVAQAANAVREVHVLFLDFPGMLSHLELTLQASKQNGTETQEVF LVLVSNKNVFVKFQAPEIPLHLAYDSSLVIFQGQPRVNITVLPSLTSRKQILDWA ATKGAITSIAALDDPQSIVLQLGQDPKAPFLCLPEAHKDMGATLEWQPRAQTP VQSCRLEGVSGHKEAYILRILPGSEAGPRTVTVMMELSCTSGDAILILHGPPYVS WFIDINHSMQILTTGEYSVKIFPGSKVKGVELPDTPQGLIAEARKLNASIVTSFV ELPLVSNVSLRASSCGGVFQTTPAPVVTTPPKDTCSPVLLMSLIQPKCGNQVMT LALNKKHVQTLQCTITGLTFWDSSCQAEDTDDHLVLSSAYSSCGMKVTAHVV SNEVIISFPSGSPPLRKKVQCIDMDSLSFQLGLYLSPHFLQASNTIELGQQAFVQV SVSPLTSEVTVQLDSCHLDLGPEGDMVELIQSRTAKGSCVTLLSPSPEGDPRFSF

LLRVYMVPTPTAGTLSCNLALRPSTLSQEVYKTVSMRLNIVSPDLS.

## **Application Note**

It is recommended to reconstitute the lyophilized CD-105 in sterile PBS not less than 100  $\tilde{A} \square \hat{A} \mu g/ml$ , which can then be further diluted to other aqueous solutions. 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.



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