i-DNA Biotechnology Pte Ltd

Data Sheet

Endoglin Mouse Recombinant

Catalogue Number	IY-424
Synonyms	CD105, ENG, END, ORW, HHT1, ORW1, FLJ41744, Cell surface MJ7/18 antigen, Endoglin.
Introduction	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.
Patent Rights	The sale and/or commercial use of Recombinant Adiponectin is prohibited in the United States of America (U.S.A).
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. The CD105 is fused to a C-terminal His-tag (6xHis) and purified by proprietary chromatographic techniques.
Source	Insect Cells.
Physical Appearence	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Endoglin was lyophilized from a concentrated (1mg/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.

Amino Acid Sequence	MDRGVLPLPITLLFVIYSFVPTTGLAERVGCDLQPVDPTRGEVT FTTSQVSEGCVAQAANAVREVHVLFLDFPGMLSHLELTLQASKQNGTETQEVF LVLVSNKNVFVKFQAPEIPLHLAYDSSLVIFQGQPRVNITVLPSLTSRKQILDWA ATKGAITSIAALDDPQSIVLQLGQDPKAPFLCLPEAHKDMGATLEWQPRAQTP VQSCRLEGVSGHKEAYILRILPGSEAGPRTVTVMMELSCTSGDAILILHGPPYVS WFIDINHSMQILTTGEYSVKIFPGSKVKGVELPDTPQGLIAEARKLNASIVTSFV ELPLVSNVSLRASSCGGVFQTTPAPVVTTPPKDTCSPVLLMSLIQPKCGNQVMT LALNKKHVQTLQCTITGLTFWDSSCQAEDTDDHLVLSSAYSSCGMKVTAHVV SNEVIISFPSGSPPLRKKVQCIDMDSLSFQLGLYLSPHFLQASNTIELGQQAFVQV SVSPLTSEVTVQLDSCHLDLGPEGDMVELIQSRTAKGSCVTLLSPSPEGDPRFSF LLRVYMVPTPTAGTLSCNLALRPSTLSQEVYKTVSMRLNIVSPDLS.
Biological 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	Products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.