

## CD105/Endoglin, soluble Active Protein | CD105/Endoglin active protein

Mouse CD105/Endoglin, soluble

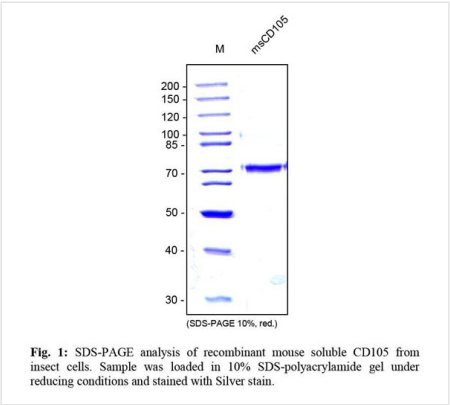
|                              |                             |                            |
|------------------------------|-----------------------------|----------------------------|
| CATALOG #<br><b>AAA79282</b> | HOST<br><b>Insect Cells</b> | REACTIVITY<br><b>Mouse</b> |
|------------------------------|-----------------------------|----------------------------|

### PRODUCT SYNONYMS

CD105/Endoglin; soluble; Mouse CD105/Endoglin; Recombinant Mouse Soluble CD105/Endoglin; Cell surface MJ7/18 antigen; CD105; Endoglin; CD105/Endoglin active protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Reactivity              | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Purity/Purification     | > 90% by SDS-PAGE & silver stain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Form/Format             | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Sequence                | ERVGCDLQPV DPTRGEVTF T SQVSEGCVA QAANAVREHV VLFLDFPGML SHLELTQAS KQNGTETQEV<br>FLVLVSNKNV FVKFQAPEIP LHLAYDSSLV IFQGQPRVNI TVLPSLTSRK QILDWAATKG AITSIAALDD<br>PQSIVLQLGQ DPKAPFLCLP EAHKDMGATL EWQPRAQTPV QSCRLEGVSG HKEAYILRIL PGSEAGPRTV<br>TVMMELSCTS GDAILLHGP PYVSWFIDIN HSMQILTTGE YSVKIFPGSK DKGVELPDTP QGLIAEARKL<br>NASIVTSFVE LPLVSNVSLR ASSCGGVFQT TPAPVVTPPP KDTCSPLLLM SLIQPKCGNQ VMTLALNKKH<br>VQTLQCTITG LTFWDSSCQA EDTDDHLVLS SAYSSCGMKV TAHVVSNEVI ISFPSGSPPL RKKVQCIDMD<br>SLSFQLGLYL SPHFLQASNT IELGQQAFVQ VSVSPLTSEV TVQLDSCHLD LGPEGDMVEL IQSRTAKGSC<br>VTLLSPSPEG DPRFSFLLRV YMVPTPTAGT LSCNLALRPS TLSQEVYKTV SMRLNIVSPD LSHHHHHH |
| Sequence Length         | 558                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Gene                    | Egn                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Stabilizer              | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Reconstitution          | The lyophilized sCD105 is soluble in water and most aqueous buffers. The lyophilized sCD105 should be reconstituted in PBS or medium to a concentration not lower than 50ug/ml.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Buffer                  | PBS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Biological Activity     | Not tested so far                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Preparation and Storage | Lyophilized samples are stable for greater than six months at -20 degree C to -70 degree C. Reconstituted sCD105 should be stored in working aliquots at -20 degree C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



Application Data

ADDITIONAL INFORMATION

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|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for CD105/Endoglin active protein | <p>A DNA sequence encoding the extracellular domain of mouse Endoglin (Met 1 - Gly 581) was expressed in insect cells. Mouse Endoglin is a disulfide-linked homodimeric protein. Based on N-terminal sequence analysis, the primary structure of recombinant mature Endoglin starts at Glu 26. Endoglin has a calculated monomeric molecular mass of 61 kDa but as a result of glycosylation, migrates at approximately 75 - 85 kDa under reducing conditions in SDS-PAGE. Endoglin, also known as CD105, is a Type I integral membrane glycoprotein with a large, disulfide-linked, extracellular region and a short, constitutively phosphorylated, cytoplasmic tail. Two splice variants of human endoglin, the S-endoglin and L-endoglin that differ in the length of their cytoplasmic tails have been identified. Endoglin is highly expressed on vascular endothelial cells, chondrocytes, and syncytiotrophoblasts of term placenta. It is also found on activated monocytes, bone marrow pro-erythroblasts, and leukemic cells of lymphoid and myeloid lineages. Human and mouse endoglin share approximately 70% and 97 % amino acid sequence identity in their extracellular and intracellular domains, respectively. In common with betaglycan (also named TbetaRIII), a proteoglycan that shares regions of sequence similarity, endoglin is an accessory receptor for the TGF-<math>\beta</math> superfamily ligands. Endoglin does not bind ligands by itself, but does so by associating with a ligand-binding serine/threonine kinase receptor. Endoglin binds TGF-<math>\beta</math>1 and TGF-<math>\beta</math>3 but not TGF-<math>\beta</math>2 efficiently by associating with TGF-<math>\beta</math> type II receptor (TbetaRII). It interacts with activin-A and BMP-7 using either the activin type II or type IIB receptors. In the case of BMP-2 which binds directly to the type I but not the type II BMP receptor, endoglin binds via either BMPRII-A (ALK-3) or BMPRII-B (ALK-6). Although the consequence of endoglin interactions on the functions of TGF-<math>\beta</math> family ligands is poorly understood, endoglin has clearly been shown to be required for angiogenesis and to play a key role in heart development. Mutations in human endoglin or ALK-1 (another type I serine/threonine receptor) lead to the vascular disorder hereditary hemorrhagic telangiectasia (HHT). Mice heterozygous for endoglin have been developed as disease models for HHT. Endoglin has been shown to be a powerful marker of neovascularization. It is also useful as a functional marker that defines long-term repopulating hematopoietic stem cells.</p> |
| Product Categories/Family for CD105/Endoglin active protein   | <a href="#">Soluble receptors</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| References                                                    | <p>1. Cheifetz et al., J Biol Chem 267:19027, 1992 2. Parker et al., J Bone Miner Res 18:289, 2003 3. Barbara et al., J Biol Chem 274:584, 1999 4. McAllister et al., Nature Genet 8:345, 1994 5. Chen et al., Proc Natl Acad Sci 99:15468, 2002</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

NCBI AND UNIPROT INFORMATION

|                           |                                                                          |
|---------------------------|--------------------------------------------------------------------------|
| NCBI GI #                 | <a href="#">226437647</a>                                                |
| NCBI GeneID               | <a href="#">13805</a>                                                    |
| NCBI Accession #          | <a href="#">NP_031958.2</a>                                              |
| NCBI GenBank Nucleotide # | <a href="#">NM_007932.2</a>                                              |
| UniProt Accession #       | <a href="#">Q63961</a> ; <a href="#">Q61520</a> ; <a href="#">Q8K100</a> |
| Molecular Weight          | 70-75 kDa                                                                |

|                                  |                                                                   |
|----------------------------------|-------------------------------------------------------------------|
| NCBI Official Full Name          | endoglin isoform 1                                                |
| NCBI Official Synonym Full Names | endoglin                                                          |
| NCBI Official Symbol             | Eng                                                               |
| NCBI Official Synonym Symbols    | Endo; CD105; AI528660; AI662476; S-endoglin                       |
| NCBI Protein Information         | endoglin; transmembrane glycoprotein; cell surface MJ7/18 antigen |
| UniProt Protein Name             | Endoglin                                                          |
| UniProt Gene Name                | <b>Eng</b>                                                        |
| UniProt Synonym Gene Names       | Edg                                                               |
| UniProt Entry Name               | EGLN_MOUSE                                                        |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/insect-mouse-active-protein/cd105-endoglin-soluble/79282>