CD105/Endoglin Protein, Mouse (HEK293, His)

Cat. No.:	HY-P75446
Synonyms:	Endoglin; END; CD105; ENG; Cell surface MJ7/18 antigen
Species:	Mouse
Source:	HEK293
Accession:	Q63961 (R28-G581)
Gene ID:	13805
Molecular Weight:	65-70 kDa

PROPERTIES

AA Sequence

MDRGVLPLPI TLLFVIYSFV PTTGLAERVG CDLQPVDPTR
GEVTFTTSQV SEGCVAQAAN AVREVHVLFL DFPGMLSHLE
LTLQASKQNG TETQEVFLVL VSNKNVFVKF QAPEIPLHLA
YDSSLVIFQG QPRVNITVLP SLTSRKQILD WAATKGAITS
IAALDDPQSI VLQLGQDPKA PFLCLPEAHK DMGATLEWQP
RAQTPVQSCR LEGVSGHKEA YILRILPGSE AGPRTVTVMM
ELSCTSGDAI LILHGPPYVS WFIDINHSMQ ILTTGEYSVK
IFPGSKVKGV ELPDTPQGLI AEARKLNASI VTSFVELPLV
SNVSLRASSC GGVFQTTPAP VVTTPPKDTC SPVLLMSLIQ
PKCGNQVMTL ALNKKHVQTL QCTITGLTFW DSSCQAEDTD
DHLVLSSAYS SCGMKVTAHV VSNEVIISFP SGSPPLRKKV
QCIDMDSLSF QLGLYLSPHF LQASNTIELG QQAFVQVSVS
PLTSEVTVQL DSCHLDLGPE GDMVELIQSR TAKGSCVTLL
SPSPEGDPRF SFLLRVYMVP TPTAGTLSCN LALRPSTLSQ
EVYKTVSMRL NIVSPDLSGK G

Biological Activity

Measured by its ability to inhibit BMP9-induced alkaline phosphatase production by MC3T3E1 mouse chondrogenic cells. The ED_{50} for this effect is typically 25-100 ng/mL in the presence of 2 ng/mL of recombinant human BMP9.

Appearance

Solution.

Formulation

Supplied as a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.

Endotoxin Level

<1 EU/μg, determined by LAL method.

Reconsititution

N/A.

Storage & Stability

Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.

Shipping	Shipping with dry ice

DESCRIPTION

Background	CD105/Endoglin, a vascular endothelium glycoprotein, plays a crucial role in angiogenesis regulation, contributing to the normal structure and integrity of adult vasculature. Essential for maintaining the structural integrity of the vasculature, CD105/Endoglin also influences the migration of vascular endothelial cells. Its significance extends to extraembryonic angiogenesis and embryonic heart development, underscoring its essential role in vascular development. CD105/Endoglin may modulate endothelial cell responses to blood flow, impacting vascular remodeling and the establishment of normal vascular morphology during angiogenesis. Functioning as a TGF-beta coreceptor, it is involved in the TGF-beta/BMP signaling cascade, leading to the activation of SMAD transcription factors. Furthermore, CD105/Endoglin interacts with various molecules, including TGFB1, GDF2, ACVRL1, BMP10, DYNLT4, and ARRB2, highlighting its multifaceted involvement in cellular processes. The protein forms homodimers through disulfide linkages and engages in heteromeric complexes with TGF-beta signaling receptors. Additionally, CD105/Endoglin binds TGFB1 and TGFB2 with high affinity, further emphasizing its intricate role in molecular interactions.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA