Active Recombinant Human GREM1 Protein

Cat. No. GREM1-292H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GREM1, transcript variant 1, was expressed in CHO cells.
Species	Human
Source	CHO
Description	THis gene encodes a member of the BMP (bone morphogenic protein) antagonist family. Like BMPs, BMP antagonists contain cystine knots and typically form homo- and heterodimers. The CAN (cerberus and dan) subfamily of BMP antagonists, to which tHis gene belongs, is characterized by a C-terminal cystine knot with an eight-membered ring. The antagonistic effect of the secreted glycosylated protein encoded by tHis gene is likely due to its direct binding to BMP proteins. As an antagonist of BMP, tHis gene may play a role in regulating organogenesis, body patterning, and tissue differentiation. In mouse, tHis protein has been shown to relay the sonic hedgehog (SHH) signal from the polarizing region to the apical ectodermal ridge during limb bud outgrowth. Alternatively spliced transcript variants encoding different isoforms have been found for tHis gene.
Form	Lyophilized from a 0.2 μM filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2
Bio-activity	Determined by its ability to inhibit BMP-4 induced alkaline phosphatase production by ATDC-5 chondrogenic cells. The ED50 for tHis effect is 0.07-0.11ug/mL.
Molecular Mass	18.3 kDa

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AA Sequence	KKKGSQGAIPPPDKAQHNDSEQTQSPQQPGSRNRGRGQGRGTAMPGEEVLESSQ EALHVTERKYLKRDWCKTQPLKQTIHEEGCNSRTIINRFCYGQCNSFYIPRHIRKEEG SFQSCSFCKPKKFTTMMVTLNCPELQPPTKKKRVTRVKQCRCISIDLD
Endotoxin	Endotoxin level is <0.1 ng/μg of protein (<1EU/μg).
Purity	>90% as determined by SDS-PAGE and Coomassie blue staining
Concentration	Resuspend the protein in the desired concentration in proper buffer

GENE INFORMATION

Gene Name	GREM1 gremlin 1 [Homo sapiens]
Official Symbol	GREM1
Synonyms	GREM1; gremlin 1; CKTSF1B1, cysteine knot superfamily 1, BMP antagonist 1 , gremlin 1, cysteine knot superfamily, homolog (Xenopus laevis); gremlin-1; DAND2; DRM; gremlin; gremlin 1-like protein; DAN domain family member 2; increased in high glucose-2; proliferation-inducing gene 2; increased in high glucose protein 2; cell proliferation-inducing gene 2 protein; cysteine knot superfamily 1, BMP antagonist 1; gremlin 1, cysteine knot superfamily, homolog; down-regulated in Mos-transformed cells protein; PIG2; IHG-2; GREMLIN; CKTSF1B1; MGC126660;
Gene ID	26585
mRNA Refseq	NM_001191322
Protein Refseq	NP_001178251
MIM	603054

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UniProt ID	O60565

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