

## Active Recombinant Human GREM1 Protein

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

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human GREM1, transcript variant 1, was expressed in CHO cells.
<b>Species</b>	Human
<b>Source</b>	CHO
<b>Description</b>	<p>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.</p>
<b>Form</b>	Lyophilized from a 0.2 M filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2
<b>Bio-activity</b>	Determined by its ability to inhibit BMP-4 induced alkaline phosphatase production by ATDC-5 chondrogenic cells. The ED50 for this effect is 0.07-0.11 ug/mL.
<b>Molecular Mass</b>	18.3 kDa

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

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">GREM1 gremlin 1 [ Homo sapiens ]</a>
<b>Official Symbol</b>	<a href="#">GREM1</a>
<b>Synonyms</b>	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;
<b>Gene ID</b>	<a href="#">26585</a>
<b>mRNA Refseq</b>	<a href="#">NM_001191322</a>
<b>Protein Refseq</b>	<a href="#">NP_001178251</a>
<b>MIM</b>	<a href="#">603054</a>

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