

## Recombinant Human GREM1 Protein, His-tagged

Cat. No. GREM1-2215H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human GREM1 Protein (Lys26-Asp184) with a N-His tag was expressed in E. coli.

**Species** Human

**Source** E.coli

**ProteinLength** Lys26-Asp184

**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** Freeze-dried powder

**Molecular Mass** Predicted Molecular Mass: 24.9 kDa  
Accurate Molecular Mass: 23 kDa

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<b>Endotoxin</b>	<1.0 EU per 1g (determined by the LAL method).
<b>Purity</b>	> 97%
<b>Applications</b>	Cell culture; Activity Assays.
<b>Stability</b>	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
<b>Storage</b>	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
<b>Storage Buffer</b>	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
<b>Reconstitution</b>	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## GENE INFORMATION

<b>Gene Name</b>	<b>GREM1</b> gremlin 1 [ <i>Homo sapiens</i> (human) ]
<b>Official Symbol</b>	<b>GREM1</b>
<b>Synonyms</b>	GREM1; gremlin 1; CKTSF1B1, cysteine knot superfamily 1, BMP antagonist 1, gremlin 1, cysteine knot superfamily, homolog ( <i>Xenopus laevis</i> ); 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;

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gremlin 1, cysteine knot superfamily, homolog; down-regulated in Mos-transformed cells protein; PIG2; IHG-2; GREMLIN; CKTSF1B1; MGC126660;

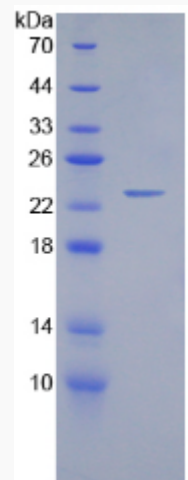
**Gene ID** 26585

**mRNA Refseq** NM\_001191322

**Protein Refseq** NP\_001178251

**MIM** 603054

**UniProt ID** O60565

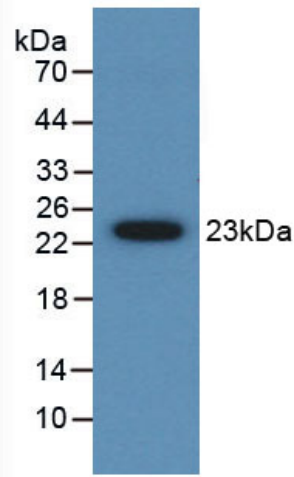


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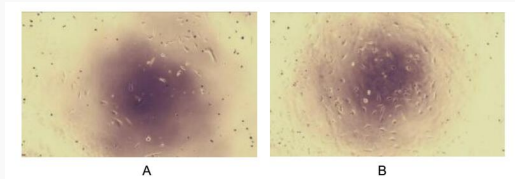
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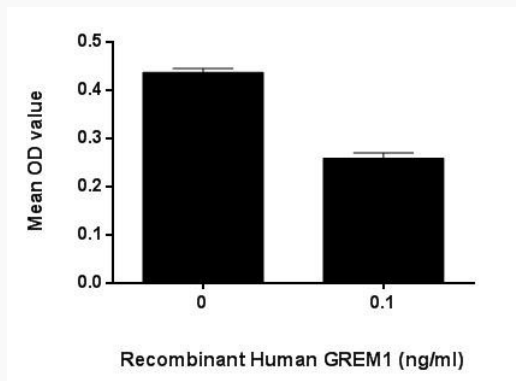



Bioactivity



Inhibition of 3T3 cell proliferation after stimulated with GREM1.

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