

Active Recombinant Mouse Gremlin 1, His-tagged

Cat. No. Grem1-5635M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Grem1 protein was expressed in Murine myeloma cellline. Lys25-Asp184, with a C-terminal 10-His tag.
Species	Mouse
Source	Mammalian Cells
Protein Length	25-184 a.a.
Description	Grem1 was identified in a Xenopus expression-cloning screen as a dorsalizing factor that can induce a secondary axis. A rat homolog, called Grem1, was identified as a cDNA that was downregulated in v-mos transfected cells. Grem1 belongs to the DAN family of secreted glycoproteins that are BMP antagonists. Other members of the family include: cerberus, Dante, PRDC, caronte and DAN. DAN family members share a cysteine-rich domain that is structurally related to the cysteine-knot motif found in TGF- β superfamily ligands. In vitro, Grem1 binds BMP-4 and BMP-2 indicating that it might interfere with BMP signaling.
Form	Lyophilized from a 0.2 μ m filtered solution in Acetonitrile and TFA with BSA as a carrier protein.
N-terminal Sequence	Lys25
Molecular Weight	19.6 kDa

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Activity	Measured by its ability to inhibit BMP-4-induced alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED50 for this effect is typically 0.4-2 µg/mL in the presence of 75 ng/mL of rhBMP-4.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
SDS-PAGE	23-31 kDa, reducing conditions.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Reconstitution	250 µg/mL in sterile 4 mM HCl containing at least 0.1% human or bovine serum albumin
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.

GENE INFORMATION

Gene Name	Grem1 gremlin 1 [Mus musculus]
Official Symbol	Grem1
Synonyms	Grem1; gremlin 1; Id; Drm; Cktsf1b1; gremlin-1; down-regulated in v-mos-transformed cells; cysteine knot superfamily 1, BMP antagonist 1; down-regulated in Mos-transformed cells protein
Gene ID	23892
mRNA Refseq	NM_011824

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Protein Refseq	NP_035954
UniProt ID	O70326
Chromosome Location	2
Function	cytokine activity

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