Recombinant Human GREM1 protein, His-tagged

Cat. No. GREM1-1007H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GREM1 protein (Lys25-Asp184), fused to His tag at C-terminus, was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	160
Description	Gremlin is also known as Cysteine knot superfamily 1, BMP antagonist 1 (CKTSF1B1), DAN domain family member 2 (DAND2), Down-regulated in Mos-transformed cells protein (DRM), Increased in high glucose protein 2 (IHG-2), Cell proliferation-inducing gene 2 protein (PIG2) or Gremlin-1 (GREM1), which is highly expressed in small intestine, fetal brain and colon. Gremlin/GREM-1 interacts with SLIT1 and SLIT2 in a glycosylation-dependent manner. Gremlin may play an important role during carcinogenesis and metanephric kidney organogenesis, as a BMP antagonist required for early limb outgrowth and patterning in maintaining the FGF4-SHH feedback loop. Gremlin down-regulates the BMP4 signaling in a dose-dependent manner and acts as inhibitor of monocyte chemotaxis.
Form	Lyophilized from 0.22 um filtered solution in PBS, pH7.4 with 1 mM EDTA, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 20.2 kDa. The protein migrates as 28-35 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

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Endotoxin	Less than 1.0 EU per ug by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. This product is stable after storage at: -20 centigrade to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4℃ before opening to recover the entire contents.

GENE INFORMATION

Gene Name	GREM1
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

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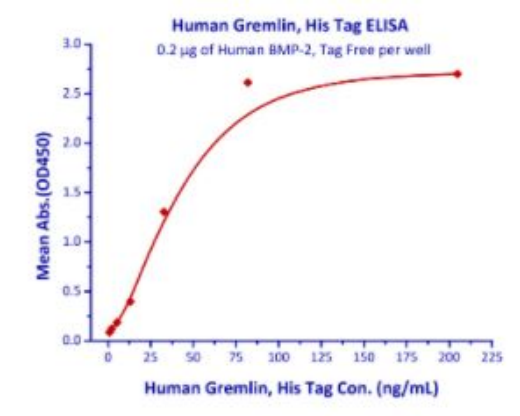
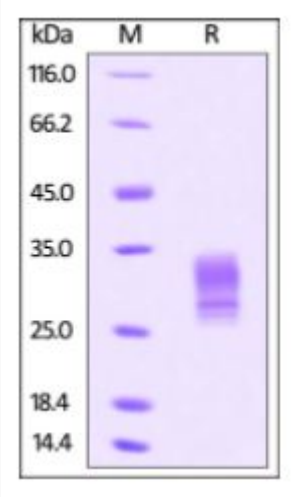
Protein Refseq	NP_001178251
MIM	603054
UniProt ID	O60565
Bioactivity-ELISA of GREM1-1007H	 Immobilized Human BMP-2, Tag Free at 2 μg/mL (100 μL/well) can bind Human Gremlin, His Tag with a linear range of 0.8-82 ng/mL (QC tested).
SDS-PAGE of GREM1-1007H	

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Human Gremlin, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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