

## Product datasheet for **TP723147**

### Gremlin 1 (GREM1) (NM\_013372) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human gremlin 1 (GREM1), transcript variant 1.
Species:	Human
Expression Host:	CHO
Expression cDNA Clone or AA Sequence:	KKKGSQGAIP PPDKAQHNS EQTQSPQPG SRNRGRGQGR GTAMPGEEVL ESSQEALHVT ERKYLKRDWC KTQPLKQTIH EEGCNSRTII NRCYGCNS FYIPRHIRKE EGSFQSCSFC KPKKFTMMV TLNCPQLQP TTKKRVTRVK QCRCISIDLD
Tag:	Tag Free
Predicted MW:	18.3 kDa
Concentration:	lot specific
Purity:	>90% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	Lyophilized from a 0.2 $\mu$ M filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2
Bioactivity:	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 $\mu$ g/mL.
Endotoxin:	Endotoxin level is < 0.1 ng/ $\mu$ g of protein (< 1 EU/ $\mu$ g)
Storage:	Store at -80°C.
Stability:	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
RefSeq:	<a href="#">NP_037504</a>
Locus ID:	26585
UniProt ID:	<a href="#">O60565</a>
RefSeq Size:	4150
Cytogenetics:	15q13.3
RefSeq ORF:	552
Synonyms:	C15DUPq; CKTSF1B1; CRAC1; CRCS4; DAND2; DRM; DUP15q; GREMLIN; HMPS; HMPS1; IHG-2; MPSH; PIG2



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**Summary:**

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. [provided by RefSeq, Jul 2010]

**Protein Families:**

ES Cell Differentiation/IPS, Secreted Protein