

Murine Gremlin-1

Synonyms: Grem1, Id, Drm, Cktsf1b1

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
50 µg	4412.960.050		

Please enquire for bulk quantities and other vial sizes

Description

Gremlin was identified in a *Xenopus* expression cloning screen as a dorsalizing factor that can induce a secondary axis. A rat homolog, called Drm, was identified as a cDNA that was down regulated in *v Mos* transfected cells. Gremlin/Drm 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, Gremlin/Drm binds BMP4 and BMP2 indicating that it might interfere with BMP signaling. Gremlin/Drm acts as a BMP2/ 4 antagonist in a variety of tissues and developmental processes including: *Xenopus* animal cap explants, chick limb bud outgrowth and chondrogenesis, murine lung branching morphogenesis, and osteogenic differentiation of mouse myoblasts and bone marrow stromal cells. In addition, expression of Gremlin/Drm has been shown to be down-regulated in a wide range of human cancer cell lines. Murine, human, chick and *Xenopus* homologs of Gremlin share over 80% amino acid identity. It is likely that various DAN family members and other BMP antagonists including Noggin, Chordin, Follistatin and TSG can selectively antagonize the activities of different subsets of TGF β superfamily ligands.

- **Source** *E. Coli*
- **Purity** $\geq 95\%$ (SDS-PAGE, silver stained)

Biological Activity

Data not available.

Reconstitution

Mouse Grem-1 should be reconstituted in 50 mM acetic acid or water to a concentration of 0.1 mg/ml. This solution can be diluted in water or other buffer solutions or stored at -20 °C.

Amino Acid Sequence

MKKKGSQGAI PPPDKAQHND SEQTQSPPQP GSRTGRGRGQG RGTAMPGEEV LESSQEALHV TERKYLKRDW
CKTQPLKQTI HEEGCNSRTI INRFCYGCN SFYIPRHIRK EEGSFQSCSF CKPKKFTTMM VTLNCPQLQP
PTKKRVRTV KQCRCSIDL D

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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