

# Recombinant human Gremlin protein

Catalog Number: ATGP1961

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

25-184aa

### UniProt No.

O60565

### NCBI Accession No.

NP\_037504.1

### Alternative Names

Gremlin-1 isoform 1, CKTSF1B1, DAND2, DRM, GREMLIN, IHG-2, PIG2

## PRODUCT SPECIFICATION

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### Molecular Weight

20.7 kDa (183aa)

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol

### Purity

> 90% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE, Denatured

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

GREM1 is 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 protein belongs, is characterized by a C-terminal cystine knot with an eight-membered ring. The antagonistic effect of the secreted glycosylated protein is likely due to its direct binding to BMP proteins. As an antagonist of BMP, this protein 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

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polarizing region to the apical ectodermal ridge during limb bud outgrowth. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. Recombinant human GREM1 protein, fused to His-tag at N-terminus, was expressed in *E. coli*.

## Amino acid Sequence

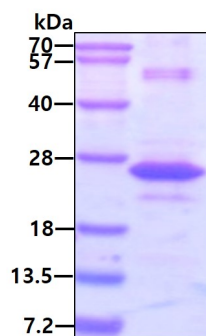
<MGSSHHHHHH SSGLVPRGSH MGS>KKKGSQG AIPPPDKAQH NDSEQTQSPQ QPGRNRGRG QGRGTAMPGE  
EVLESSQEAL HVTERKYLKR DWCKTQPLKQ TIHEEGCNSR TIINRFCYGQ CNSFYIPRHI RKEEGSFQSC SFCKPKKFTT  
MMVTLNCPQL QPPTKKKRVV RVKQCRCISI DLD

## General References

Helena Stabile, Stefania Mitola, et al. (2007). *Blood* 109:5 1834-1840.

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain