
Product Data Sheet

Product Name: GREM1 Human
 Cat. No.: GP23598
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Gremlin-1 isoform 1; CKTSF1B1; DAND2; DRM; GREMLIN; IHG-2; PIG2; GREM1; Cell proliferation-inducing gene 2 protein; Cysteine knot superfamily 1; BMP antagonist 1; DAN domain family member 2; Down-regulated in Mos-transformed cells protein; Increased in high glucose protein 2.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSKKKGSGQ AIPPPDKAQH NDSEQTQSPQ QPGSRNRGRG QGRGTAMPGE EVLESSQEAL HVTERKYLKR DWCKTQPLKQ TIHEEGCNSR TIINRFCYGQ CNSFYIPRHI RKEEGSFQSC SFCKPKKFTT MMVTLNCPPEL QPPTKKKRVTV RVKQRCRCSI DLD.		
Formulation	The GREM1 solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.4M Urea and 10% glycerol.		

Introduction

GREM1 belongs to the BMP (bone morphogenic protein) antagonist family. Like BMPs, BMP antagonists comprise cystine knots and usually form homo- and heterodimers. The CAN (cerberus and dan) subfamily of BMP antagonists, to which GREM1 belongs, is characterized by a C-terminal cystine knot with an eight-membered ring. The antagonistic effect of the secreted glycosylated protein is because of its direct binding to BMP proteins. As an antagonist of BMP, GREM1 takes a place in regulating organogenesis, body patterning, and tissue differentiation. In mouse, GREM1 has been shown to convey the sonic hedgehog (SHH) signal from the polarizing region to the apical ectodermal ridge during limb bud outgrowth. Alternatively merged transcript variants encoding different isoforms have been found for this gene.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

GREM1 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 183 amino acids (25-184) and having a molecular mass of 20.7 kDa. GREM1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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