10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GREM1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP12247b

Specification

GREM1 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	O60565
Other Accession	O35793, O70326, NP_037504.1
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**20697**
Antigen Region	**111-139**

GREM1 Antibody (C-term) - Additional Information

Gene ID 26585

Other Names
Gremlin-1, 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, IHG-2, GREM1, CKTSF1B1, DAND2, DRM

Target/Specificity
This GREM1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 111-139 amino acids from the C-terminal region of human GREM1.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GREM1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GREM1 Antibody (C-term) - Protein Information

Name GREM1

Synonyms CKTSF1B1, DAND2, DRM

Function Cytokine that 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. Down-regulates the BMP4 signaling in a dose-dependent manner (By similarity). Antagonist of BMP2; inhibits BMP2-mediated differentiation of osteoblasts (in vitro) (PubMed:27036124). Acts as inhibitor of monocyte chemotaxis. Can inhibit the growth or viability of normal cells but not transformed cells when is overexpressed (By similarity).

Cellular Location
Secreted.

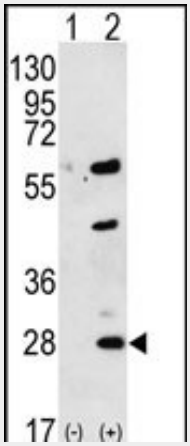
Tissue Location
Highly expressed in small intestine, fetal brain and colon. Expression is restricted to intestinal subepithelial myofibroblasts (ISEMFs) at the crypt base. In subjects with HMPS1, by contrast, GREM1 is expressed, not only in basal ISEMFs, but also at very high levels in epithelial cells (predominantly colonocytes), with expression extending most of the way up the sides of the crypt. Weakly expressed in brain, ovary, prostate, pancreas and skeletal muscle. In brain found in the region localized around the internal capsule in the large subcortical nuclei, including caudate, putamen, substantia nigra, thalamus and subthalamus. Predominantly expressed in normal cells including neurons, astrocytes and fibroblasts

GREM1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GREM1 Antibody (C-term) - Images



Western blot analysis of GREM1 (arrow) using rabbit polyclonal GREM1 Antibody (C-term) (Cat. #AP12247b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the GREM1 gene.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GREM1 Antibody (C-term) - Background

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.

GREM1 Antibody (C-term) - References

Kupfer, S.S., et al. Gastroenterology 139(5):1677-1685(2010)
Dimitrov, B.I., et al. J. Med. Genet. 47(8):569-574(2010)
McKnight, A.J., et al. J. Am. Soc. Nephrol. 21(5):773-781(2010)
van Vlodrop, I.J., et al. Am. J. Pathol. 176(2):575-584(2010)
Mangold, E., et al. Nat. Genet. 42(1):24-26(2010)