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DAND5/GREM3 Rabbit pAb

Catalog # AP97729

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8N907
Other Accession	Q8N907
Host	Rabbit
Clonality	Polyclonal
Calculated MW	20180
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DAND5/GREM3
Epitope Specificity	101-189/189
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the DAN family. Contains 1 CTCK (C-terminal cystine knot-like) domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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 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 bind Nodal and to inhibit the Nodal signaling pathway which patterns left/right body asymmetry. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	199699
Other Names	CER2; CERL2; CKTSF1B3; COCO; CRL2; DANTE; GREM3; HTX13; SP1; DAND5_HUMAN; DAND5; Cerberus-like protein 2 (Cerl-2); Cysteine knot superfamily 1, BMP antagonist 3; Gremlin-3; DAN domain BMP antagonist family member 5; DAN domain family member 5, BMP antagonist
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	DAND5
Function	Antagonist of the extracellular signaling protein NODAL, which is required for correct left-right patterning during embryonic development (By similarity). Antagonist of BMP and TGF-beta signaling (PubMed:33587337). Independently of its role in left-right axis establishment, plays a role during heart development, possibly through the regulation of TGF-beta/Nodal signaling pathway (By similarity). Displays anti-angiogenic activity by inhibiting endothelial sprouting, migration, and proliferation. Once internalized by endothelial cells, may alter their redox and glycolytic balance (PubMed:33587337).
Cellular Location	Secreted. Note=Circulating DAND5 may be uptaken by endothelial cells and transported to mitochondria
Tissue Location	Expressed in the retina, in inner segments of photoreceptors, at or close to the outer plexiform layer and in the ganglion cell layer (at protein level).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.