

Recombinant Human DAND5 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50250

Size: 10ug, 100ug

Protein Name: DAN domain family member 5 (Cerberus-like protein 2) (Cerl-2) (Cysteine knot superfamily 1, BMP antagonist 3) (Gremlin-3)

Synonym: DAND5, CER2, CKTSF1B3, COCO, GREM3, SP1

UniProt ID: Q8N907

UniProt Link: www.uniprot.org/uniprotkb/Q8N907/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 189 AA

Molecular Weight: 20 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLLGQLSTLLCLLSGALPTGSGRPEPQSPRPQSWAAANQTWALGPGALPPLVPASALGSWKAFLGL
QKARQLGMGRLQRGQDEVAAVTLPLNPQEVIQGMCKAVPFVQVFSRPGCSAIRLRNHLCFGHCSS
LYIPGSDPTPLVLCNSCMPARKRWAPVVLWCLTGSSASRRRVKISTMLIEGCHCSPKA

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant DAN domain family member 5 (Cerberus-like protein 2) (Cerl-2) (Cysteine knot superfamily 1, BMP antagonist 3) (Gremlin-3) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein 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).

Subcellular Localization: Secreted . Note=Circulating DAND5 may be uptaken by endothelial cells and transported to mitochondria.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.