

RP01793

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Recombinant Human CER1/DAND4 Protein

Catalog No.: RP01793 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	9350	O95813

Tags

C-His

Synonyms

DAND4;CER1

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Endotoxin

< 0.01EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of 25mM NaAc pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact



www.abclonal.com

Background

Cerberus 1, also called DAND4, is a member of the DAN domain family of BMP antagonists that includes DAN (DAND1), Gremlin/Drm (DAND2), PRDC (Protein Related to Dan and Cerberus; DAND3), and COCO/Dante (DAND5). DAN family members contain a cysteine-knot domain that is homologous to that found in other TGF-beta superfamily ligands. Mature human Cerberus 1 shares 67% and 68% amino acid (aa) sequence identity with mouse and rat Cerberus 1, respectively. Within the cysteine-knot domain, it shares 24%-37% aa sequence identity with mouse DAN, Gremlin, PRDC, and COCO. Cerberus 1 is a secreted 38 kDa glycoprotein that forms homodimers. Cerberus-S, which is generated by proteolysis in *Xenopus*, is a short version of the molecule and includes the C-terminal cysteine-knot domain. At the onset of gastrulation, Cerberus 1 is transiently expressed in anterior endodermal structures in response to Nodal and Shh. Cerberus 1 binds BMP-4 and Nodal and inhibits their activities. *Xenopus* Cerberus has also been shown to bind *Xenopus* Wnt8. These inhibitory functions of Cerberus favor mesodermal development in the anterior region of the gastrula and suppresses posterior mesodermal differentiation. In chick and *Xenopus*, Cerberus 1 also regulates, but is not required for embryonic left-right polarization, neurulation, and head and heart induction.

Basic Information

Description

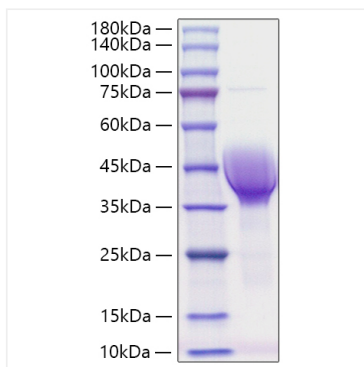
Recombinant Human CER1/DAND4 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Thr18-Ala267) of human CER1/DAND4 (Accession #NP_005445.1) fused with a 6×His tag at the C-terminus.

Bio-Activity

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human CER1/DAND4 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 35-60 kDa.