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
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Endotoxin
< 0.01 EU/μg of the protein by LAL method

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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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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

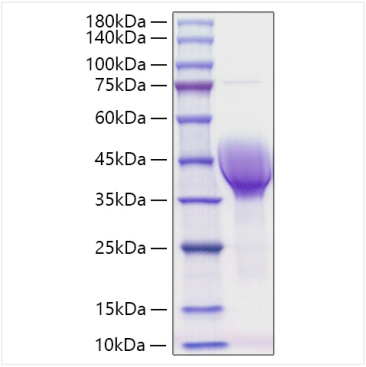
Description
Recombinant Human CER1/DAND4 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Thr18-Ala267) of human CER1/DAND4 (Accession #NP_005445.1) fused with a 6×His tag at the C-terminus.

Bio-Activity

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

* For your safety and health, please wear a lab coat and disposable gloves when handling.

Validation Data



Recombinant Human CER1/DAND4 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.