

# Recombinant Human Cerberus/CER1 Protein (His Tag)



Catalog Number:PKSH032240

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

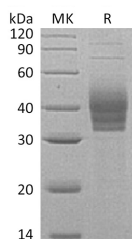
## Description

|                                    |   |
|------------------------------------|---|
| <b>Synonyms</b>                    | Cerberus;Cerberus-Related Protein;DAN Domain Family Member 4;CER1;DAND4 |
| <b>Species</b>                     | Human   |
| <b>Expression Host</b>             | HEK293 Cells  |
| <b>Sequence</b>                    | Thr18-Ala267  |
| <b>Accession</b>                   | O95813  |
| <b>Calculated Molecular Weight</b> | 29.2 kDa  |
| <b>Observed molecular weight</b>   | 35-42 kDa   |
| <b>Tag</b>                         | C-His   |

## Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.   |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein as determined by the LAL method.  |
| <b>Storage</b>        | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.                      |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.  |
| <b>Formulation</b>    | Lyophilized from a 0.2 µm filtered solution of 20mM NaAc-HAC, pH 4.5<br>Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.   |

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

Cerberus 1 is a secreted glycoprotein that forms disulfide-linked homodimers. It is a cytokine 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. 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. The 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.

## For Research Use Only

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