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Datasheet for ABIN7536458  
**CER1 Protein (His tag)**

### Overview

Quantity:	100 µg
Target:	CER1
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CER1 protein is labelled with His tag.

### Product Details

Purpose:	Recombinant Human CER1/DAND4 Protein
Sequence:	TRHQDGRQNNQ SSLSPVLLPR NQRELPTGNH EEAEKPDLF VAVPHLVATS PAGEGQRQRE KMLSRFGRFW KKPEREMHPS RDSSEPFPP GTQSLIQPID GMKMEKSPLR EEAKKFWHHF MFRKTPASQG VILPIKSHEV HWETCRTVPF SQTITHEGCE KVVVQNNLCF GKCGSVHFPG AAQHSHTSCS HCLPAKFTTM HLPLNCTELS SVIKVVMLVE ECQCKVKTEH EDGHILHAGS QDSFIPGVSA
Specificity:	Thr18-Ala267
Purity:	> 95 % by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	< 0.01EU/µg

### Target Details

Target:	CER1
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## Target Details

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Alternative Name: CER1/DAND4 ([CER1 Products](#))

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**Background:** Description: 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.

Name: DAND4,CER1

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Gene ID: 9350

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UniProt: [O95813](#)

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Pathways: [Maintenance of Protein Location](#)

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## Application Details

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Restrictions: For Research Use only

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## Handling

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Format: Lyophilized

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**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 freeze-thaw cycles.

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Concentration: 0.42 mg/mL

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

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## Handling

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Storage: -20 °C,-80 °C

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Storage Comment: Store the lyophilized protein at -20°C to -80°C for 12 months. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.