Recombinant Human CER1, His-tagged

Cat. No. CER1-7775H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Cerberus 1/CER1 is produced with our mammalian cells expression system in HEK293. The target protein is expressed with sequence (Met1Ala267) of Human CER1 fused with a polyhistidine tag at the Cterminus.
Species	Human
Source	HEK293
Description	Cerberus 1 is a secreted glycoprotein that forms disulfidelinked 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 TGFbeta 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 BMP4 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 leftright polarization, neurulation, and head and heart induction.
Form	Lyophilized from a 0.2 μM filtered solution of 20mM Hac
AA Sequence	TRHQDGRQNQ SSLSPVLLPR NQRELPTGNH EEAEEKPDLF VAVPHLVGTS

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	PAGEGQRQRE KMLSRFGRF WKKPEREMHP SRDSDSEPFP PGTQSLIQPI DGMKMEKSPL REEAKKFWHH F MFRKTPAS QGVILPIKSH EVHWETCRTV PFSQTITHEG CEKLVVQNNL CFGKCGSVHF PG AAQHSHT SCSHCLPAKF TTMHLPLNCT ELSSVIKVVM LVEECQCKVK TEHEDGHILH AGS QDSFIP GVSAVDHHHH
Purity	Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.
Notes	For research use only.
Storage	Lyophilized protein should be stored at less than 20°C. though stable at room temperature for 3 weeks.Reconstituted protein solution can be stored at 4-7°C. for 2-7 days.Aliquots of reconstituted samples are stable at less than 20°C. for 3 months.

GENE INFORMATION

Gene Name	CER1 cerberus 1, cysteine knot superfamily, homolog (Xenopus laevis) [Homo sapiens]
Official Symbol	CER1
Synonyms	CER1; cerberus 1, cysteine knot superfamily, homolog (Xenopus laevis); cerberus 1 (Xenopus laevis) homolog (cysteine knot superfamily); cerberus; DAND4; cerberus-related 1; cerberus-related protein; DAN domain family member 4; MGC96951; MGC119894; MGC119895;
Gene ID	9350
mRNA Refseq	NM_005454
Protein Refseq	NP_005445

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MIM	603777
UniProt ID	O95813
Chromosome Location	9p23-p22
Pathway	BMP receptor signaling, organism-specific biosystem; Developmental Biology, organism-specific biosystem; Regulation of Signaling by NODAL, organism-specific biosystem; Signal Transduction, organism-specific biosystem; Signaling by BMP, organism-specific biosystem; Signaling by NODAL, organism-specific biosystem; Wnt signaling pathway, organism-specific biosystem;
Function	cytokine activity; molecular_function; protein homodimerization activity;

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