



Human HERPUD1 peptide (DAG-P1669)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	The accumulation of unfolded proteins in the endoplasmic reticulum (ER) triggers the ER stress response. This response includes the inhibition of translation to prevent further accumulation of unfolded proteins, the increased expression of proteins involved in polypeptide folding, known as the unfolded protein response (UPR), and the destruction of misfolded proteins by the ER-associated protein degradation (ERAD) system. This gene may play a role in both UPR and ERAD. Its expression is induced by UPR and it has an ER stress response element in its promoter region while the encoded protein has an N-terminal ubiquitin-like domain which may interact with the ERAD system. This protein has been shown to interact with presenilin proteins and to increase the level of amyloid-beta protein following its overexpression. Alternative splicing of this gene produces multiple transcript variants encoding different isoforms. The full-length nature of all transcript variants has not been determined. [provided by RefSeq, Jan 2013]
Specificity	Widely expressed; in the brain, expression seems to be restricted to neurons and vascular smooth muscle cells. Present in activated microglia in senile plaques in the brain of patients with Alzheimer disease.
Purity	70 - 90% by HPLC.
Conjugate	Unconjugated
Sequence Similarities	Contains 1 ubiquitin-like domain.
Format	Liquid
Preservative	None
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.

GENE INFORMATION

Gene Name	HERPUD1 homocysteine-inducible, endoplasmic reticulum stress-inducible, ubiquitin-like domain member 1 [Homo sapiens (human)]
Official Symbol	HERPUD1
Synonyms	HERPUD1; homocysteine-inducible, endoplasmic reticulum stress-inducible, ubiquitin-like domain member 1; SUP; HERP; Mif1; homocysteine-responsive endoplasmic reticulum-resident ubiquitin-like domain member 1 protein; MMS-inducible; methyl methanesulfonate (MMF)-inducible fragment protein 1; homocysteine-inducible endoplasmic reticulum stress-inducible ubiquitin-like domain member 1 protein;
Entrez Gene ID	9709
mRNA Refseq	NM_001010989.2
Protein Refseq	NP_001010989.1
UniProt ID	Q15011
Chromosome Location	16q13
Pathway	Activation of Genes by ATF4, organism-specific biosystem; Diurnally regulated genes with circadian orthologs, organism-specific biosystem; HRD1/SEL1 ERAD complex, organism-specific biosystem; HRD1/SEL1 ERAD complex, conserved biosystem; Metabolism of proteins, organism-specific biosystem; PERK regulated gene expression, organism-specific biosystem; Protein processing in endoplasmic reticulum, organism-specific biosystem; Protein processing in endoplasmic reticulum, conserved biosystem; Unfolded
Function	molecular_function;