Active Recombinant Human IDE, His-tagged

Cat. No. IDE-267H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IDE (Met42-Leu1019) fused with an N-terminal Met and 7-His tag, was expressed in Sf 21 (baculovirus).
Species	Human
Source	Sf21 Cells
ProteinLength	42-1019 a.a.
Description	This gene encodes a zinc metallopeptidase that degrades intracellular insulin, and thereby terminates insulins activity, as well as participating in intercellular peptide signalling by degrading diverse peptides such as glucagon, amylin, bradykinin, and kallidin. The preferential affinity of this enzyme for insulin results in insulin-mediated inhibition of the degradation of other peptides such as beta-amyloid. Deficiencies in this protein''s function are associated with Alzheimer''s disease and type 2 diabetes mellitus but mutations in this gene have not been shown to be causitive for these diseases. This protein localizes primarily to the cytoplasm but in some cell types localizes to the extracellular space, cell membrane, peroxisome, and mitochondrion. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional transcript variants have been described but have not been experimentally verified.
Predicted N Terminal	Met
Formulation	Supplied as a 0.2 μm filtered solution in Tris, NaCl, Brij-35 and Glycerol.

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Bio-activity	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPPGFSAFK(Dnp)-OH. The specific activity is >1,000 pmol/min/μg.
Molecular Mass	114 kDa
Endotoxin	< 1.0 EU per 1 μg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Storage	Avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 °C as supplied. 3 months, -20 to -70 °C under sterile conditions after opening.

GENE INFORMATION

Gene Name	IDE insulin-degrading enzyme [Homo sapiens (human)]
Official Symbol	IDE
Synonyms	IDE; INSULYSIN; insulin-degrading enzyme; insulinase; insulin protease; Abeta-degrading protease; EC 3.4.24.56
Gene ID	3416
mRNA Refseq	NM_004969
Protein Refseq	NP_004960
MIM	146680
UniProt ID	P14735

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Chromosome Location	10q23-q25
Pathway	Alzheimer"s disease
Function	ATP binding; beta-amyloid binding; glycoprotein binding

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