

Recombinant Rat Insulin Degrading Enzyme, His-tagged

Cat. No. Ide-761R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant rat insulin degrading enzyme was fused to a His•Tag sequence and expressed in <i>S. frugiperda</i> insect cells. MW = 110 kDa.
Species	Rat
Source	<i>S. frugiperda</i>
Description	Insulin Degrading Enzyme (IDE) is a large zinc-binding protease of the M16A metalloprotease subfamily known to cleave multiple short polypeptides that vary considerably in sequence. IDE was first identified by its ability to degrade the B chain of the hormone insulin. This activity was observed over fifty years ago, though the enzyme specifically responsible for B chain cleavage was identified more recently. This discovery revealed considerable amino acid sequence homology between IDE and the previously characterized bacterial protease pitrilysin, suggesting a common proteolytic mechanism.
Purity	≥90% by SDS-PAGE.
Form	Liquid. In 100 mM potassium phosphate buffer, 20% glycerol, pH 7.3.
Specific Activity	≥3 U/mg protein.
Unit Definition	One unit is defined as the amount of the enzyme that will catalyze the hydrolysis of 1 μmol iodinated insulin per h at 37°C, pH 7.3.

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Specificity ≥4 units/mg protein.

Storage ≤ -70°C. Avoid freeze/thaw.

GENE INFORMATION

Gene Name Ide insulin degrading enzyme [*Rattus norvegicus*]

Synonyms Ide; insulin degrading enzyme; INSDEGM; insulin-degrading enzyme; insulysin; insulinase; insulin protease; EC 3.4.24.56

Gene ID 25700

mRNA Refseq NM_013159

Protein Refseq NP_037291

UniProt ID P35559

Chromosome Location 1q53

Pathway Alzheimer"s disease

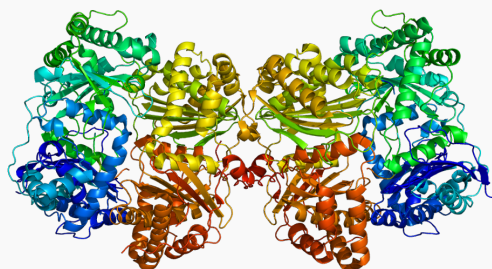
Function ATP binding; ATPase activity; beta-amyloid binding; beta-endorphin binding; insulin binding; metal ion binding; metalloendopeptidase activity; peptidase activity; nucleotide binding; peptide hormone binding; protein binding; protein homodimerization activity; zinc ion binding

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