Recombinant Human IDE

Catalog No: CA05

Description
Recombinant Human Insulin-Degrading Enzyme is produced by our Mammalian expression system and the target gene encoding Met42-Leu1019 is expressed with a 6His tag at the C-terminus.

Source
Human Cells

Alternative name
Insulin-Degrading Enzyme; Abeta-Degrading Protease; Insulin Protease; Insulinase; Insulysin; IDE

Accession No.
P14735

Formulation
Supplied as a 0.2 μm filtered solution of 20mM TrisHCl,150mM NaCl,0.05%Brij35,10%Glycerol, pH7.5.

Quality Control
Purity: Greater than 95% as determined by reducing SDS-PAGE.
Endotoxin: Less than 0.1 ng/μg (1 IEU/μg) as determined by LAL test.

Shipping
The product is shipped on dry ice/polar packs.
Upon receipt, store it immediately at the temperature listed below.

Storage
Store at < -20°C, stable for 6 months after receipt.
Please minimize freeze-thaw cycles.

Amino Acid Sequence
MNNPAIKRIGNHITKSPEDKREYRGLELANGIKVLLISDPTTDKSSAALDVHIGSLSDPPNIAGLSHFCEHML
FLGTKKYPKENEYSQFLSEHAGSSNAFTSGEHTNYYFDVSHEHLEGALDRFAQFFLCPLFDESCKDREV
NAVDSEHEKNVMNDAWRLFQLEKATGNPKHPFSKFGTGNKYTLETRPNQEGIDVRQELLKFHSAYYSSN
LMAVCVLGRESLDDLTNLVVKLFSEVENKNVPLPEFPEHPFQEEHLKQLYKIVPIKDIRNLYVTFPIPDLQK
YYKSNPGHYLGHLIGHEGPGSLLSELKSKGWVNTLVGGQKEGARGFMFFIINVDLTEEGLLHVEDIILHMF
QYIQKLRAEGPQEWVFQECKDLNAVAFRFKDKERPRGYTSKIAGILHYYPLEEVLTAEYLLEEFRPDLIEM
VLDKLRPENVRVAIVSKSFEGKTDRTEEWYGTQYKQEAIPDEVIKKWQNADLNGKFKLPTKNEFIPTNFEI
LPLEKEATPYPALIKDTAMSKLWFKQDDKFFLPKACLNFEFFSPFAYVDPLHCNMAYLYLELLKDSLNEYA
YAAELAGLSYDLQNTIYGMYLSVKGYNDKQPILLKKIIEKMATFEIDEKRFEIIKEAYMRSLNNFRAEQPHQ
HAMYYLRLLMTEVAWTKDELKEALDDVTLPRLKAFIPQLLSRLHIEALLHGNITKQAALGIMQMVEDTLIEH
AHTKPLLPSQLVRYREVQLPDRGWFVYQQRNEVHNNCGIEIYYQTDMQSTSENMFLELFCQIISEPCFNT
LRTKEQLGYIVFSGPRRANGIQGLRFIIQSEKPPHYLESRVEAFLITMEKSIEDMTEEAFQKHIQALAIRRLD
KPKKLSAECAKYWGEIISQQYNFDRDNTEVAYLKTLTKEDIIKFYKEMLAVDAPRRHKVSVHVLAREMDSC
PVVGEFPCQNDINLSQAPALPQPEVIQN MTEFKRGLPLFPLVKPHINFMAAKLLDHHHHHH

Background
Insulin-Degrading Enzyme (IDE) is a secreted enzyme that belongs to the peptidase M16 family. IDE is a large zinc-binding protease and cleaves multiple short polypeptides that vary considerably in sequence. IDE plays a role in the cellular breakdown of insulin, IAPP, glucagon, bradykinin, kallidin, and other peptides, and thereby plays a role in intercellular peptide signaling. IDE degrades amyloid formed by APP and IAPP. IDE may participate in the degradation and clearance of naturally secreted amyloid β-protein by neurons and microglia. IDE, which migrates at 110 kDa during gel electrophoresis under denaturing conditions, has since been shown to have additional substrates, including the signaling peptides glucagon, TGF α and β-endorphin.

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