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Anti-IDE Antibody

Catalog # AP61591

Product Information

Application	WB
Primary Accession	P14735
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	117968

Additional Information

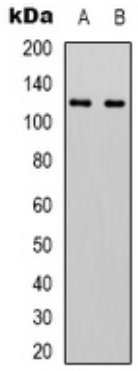
Gene ID	3416
Other Names	Insulin-degrading enzyme; Abeta-degrading protease; Insulin protease; Insulinase; Insulysin
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence of human IDE. The exact sequence is proprietary.
Dilution	WB~~WB (1/1000 - 1/2000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	IDE {ECO:0000303|PubMed:20364150, ECO:0000312|HGNC:HGNC:5381}
Function	Plays a role in the cellular breakdown of insulin, APP peptides, IAPP peptides, natriuretic peptides, glucagon, bradykinin, kallidin, and other peptides, and thereby plays a role in intercellular peptide signaling (PubMed:10684867, PubMed:17051221, PubMed:17613531, PubMed:18986166, PubMed:19321446, PubMed:21098034, PubMed:2293021, PubMed:23922390, PubMed:24847884, PubMed:26394692, PubMed:26968463, PubMed:29596046). Substrate binding induces important conformation changes, making it possible to bind and degrade larger substrates, such as insulin (PubMed:23922390, PubMed:26394692, PubMed:29596046). Contributes to the regulation of peptide hormone signaling cascades and regulation of blood glucose homeostasis via its role in the degradation of insulin, glucagon and IAPP (By similarity). Plays a role in the degradation and clearance of APP-derived amyloidogenic peptides that are secreted by neurons and microglia (Probable) (PubMed:26394692, PubMed:9830016). Degrades the natriuretic peptides ANP, BNP and CNP,

	inactivating their ability to raise intracellular cGMP (PubMed:21098034). Also degrades an aberrant frameshifted 40-residue form of NPPA (fsNPPA) which is associated with familial atrial fibrillation in heterozygous patients (PubMed:21098034). Involved in antigen processing. Produces both the N terminus and the C terminus of MAGEA3-derived antigenic peptide (EVDPIGHLY) that is presented to cytotoxic T lymphocytes by MHC class I.
Cellular Location	Cytoplasm, cytosol. Cell membrane {ECO:0000250|UniProtKB:P35559}. Secreted Note=Present at the cell surface of neuron cells. The membrane-associated isoform is approximately 5 kDa larger than the known cytosolic isoform
Tissue Location	Detected in brain and in cerebrospinal fluid (at protein level).

Images



Western blot analysis of IDE expression in Hela (A), HepG2 (B) whole cell lysates. (Predicted band size: 117 kD; Observed band size: 117 kD)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.