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KD-Validated Anti-IDE Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1556

Product Information

Application	WB, FC
Primary Accession	P14735
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB6210
Calculated MW	117968
Gene Name	IDE
Aliases	IDE; Insulin Degrading Enzyme; Insulin-Degrading Enzyme; Antibodyeta-Degrading Protease; Insulin Protease; EC 3.4.24.56; Insulinase; Insulysin; INSULYSIN; EC 3.4.24
Immunogen	A synthesized peptide derived from human IDE

Additional Information

Gene ID	3416
Other Names	Insulin-degrading enzyme, 3.4.24.56, Abeta-degrading protease, Insulin protease, Insulinase, Insulysin, IDE {ECO:0000303|PubMed:20364150, ECO:0000312|HGNC:HGNC:5381}

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).

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