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Goat anti-Insulysin / Insulinase, Biotinylated Antibody

Peptide-affinity purified goat antibody
Catalog # AF4443a

Product Information

Application	WB, IHC, Pep-ELISA
Primary Accession	P14735
Other Accession	NP_004960.2, NP_001159418.1, NP_001309722.1, NP_001309723.1, NP_001309724.1, NP_001309726.1
Reactivity	Human, Dog
Host	Goat
Clonality	Polyclonal
Clone Names	IDE
Calculated MW	117968

Additional Information

Gene ID	3416
Other Names	IDE; insulin degrading enzyme; INSULYSIN; Abeta-degrading protease; insulin protease; insulinase
Dilution	WB~~1:1000 IHC~~1:100~500 Pep-ELISA~~N/A
Format	Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.
Immunogen	This antibody is expected to recognize all reported isoforms (NP_004960.2; NP_001159418.1; NP_001309722.1; NP_001309723.1; NP_001309724.1; NP_001309726.1). Reported variants represent identical protein: NP_001309725.1, NP_001309724.1
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Goat anti-Insulysin / Insulinase, Biotinylated Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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).