

IDE Monoclonal Antibody(3H4)
Catalog # AP63337

Specification

IDE Monoclonal Antibody(3H4) - Product Information

Application	WB
Primary Accession	P14735
Reactivity	Human
Host	Mouse
Clonality	Monoclonal

IDE Monoclonal Antibody(3H4) - Additional Information

Gene ID 3416

Other Names

IDE; Insulin-degrading enzyme; Abeta-degrading protease; Insulin protease; Insulinase; Insulysin

Dilution

WB~~WB: 1:1000 IF 1:200 IHC 1:50-300

Format

PBS, pH 7.4, containing 0.09% (W/V) sodium azide as Preservative and 50% Glycerol.

Storage Conditions

-20°C

IDE Monoclonal Antibody(3H4) - 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:<a

[23922390](http://www.uniprot.org/citations/23922390), PubMed: [26394692](http://www.uniprot.org/citations/26394692), PubMed: [29596046](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/26394692), PubMed: [9830016](http://www.uniprot.org/citations/9830016)). Degrades the natriuretic peptides ANP, BNP and CNP, inactivating their ability to raise intracellular cGMP (PubMed: [21098034](http://www.uniprot.org/citations/21098034)). Also degrades an aberrant frameshifted 40-residue form of NPPA (fsNPPA) which is associated with familial atrial fibrillation in heterozygous patients (PubMed: [21098034](http://www.uniprot.org/citations/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

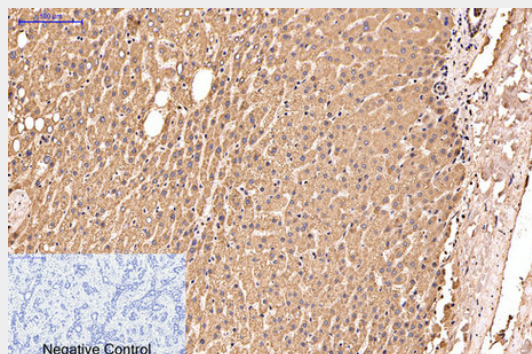
Detected in brain and in cerebrospinal fluid (at protein level).

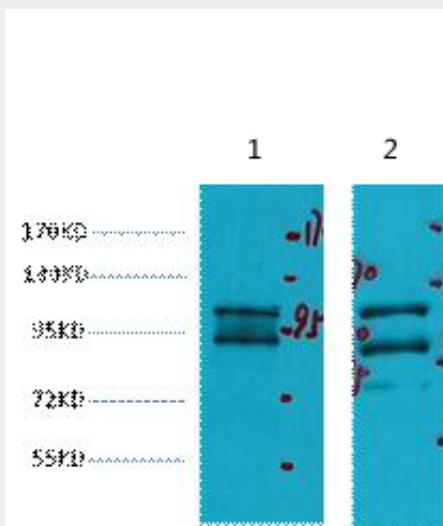
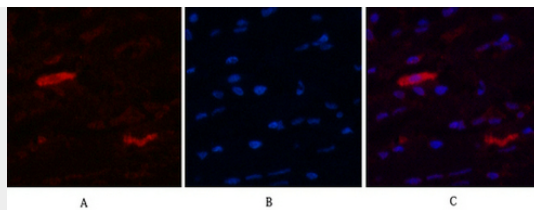
IDE Monoclonal Antibody(3H4) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

IDE Monoclonal Antibody(3H4) - Images





IDE Monoclonal Antibody(3H4) - Background

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. Degrades amyloid formed by APP and IAPP. May play a role in the degradation and clearance of naturally secreted amyloid beta-protein by neurons and microglia.