10320 Camino Santa Fe, Suite G
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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℃

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

href="http://www.uniprot.org/citations/23922390" target="_blank">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

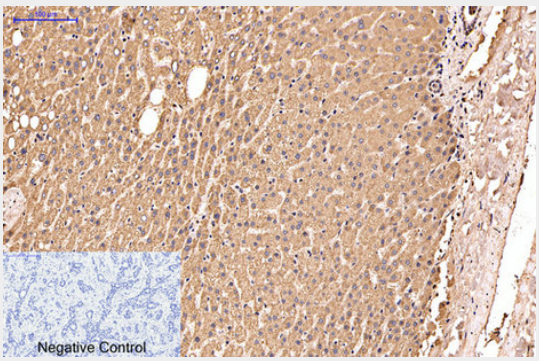
Tissue Location
Detected in brain and in cerebrospinal fluid (at protein level).

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 Cytomety
- Cell Culture

IDE Monoclonal Antibody(3H4) - Images



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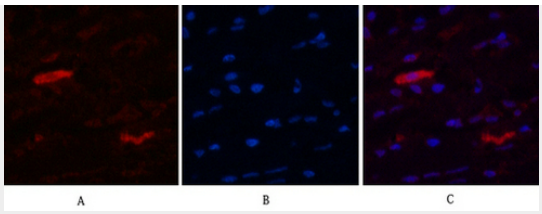

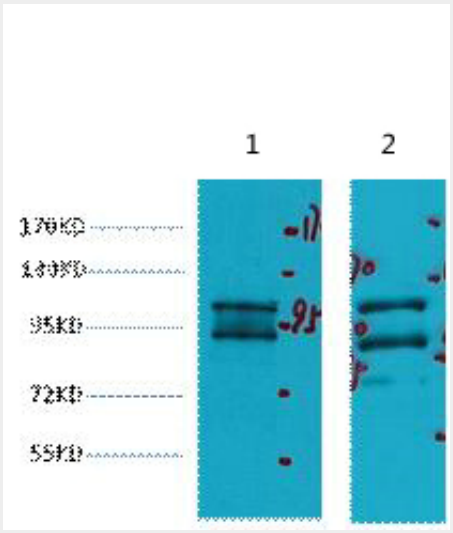

IDE Monoclonal Antibody(3H4) - Background

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.