

**IDE Monoclonal Antibody(3H4)**  
Catalog # AP63337**Specification****IDE Monoclonal Antibody(3H4) - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P14735</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>

**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:<a href="http://www.uniprot.org/citations/10684867" target="\_blank">10684867</a>, PubMed:<a href="http://www.uniprot.org/citations/17051221" target="\_blank">17051221</a>, PubMed:<a href="http://www.uniprot.org/citations/17613531" target="\_blank">17613531</a>, PubMed:<a href="http://www.uniprot.org/citations/18986166" target="\_blank">18986166</a>, PubMed:<a href="http://www.uniprot.org/citations/19321446" target="\_blank">19321446</a>, PubMed:<a href="http://www.uniprot.org/citations/21098034" target="\_blank">21098034</a>, PubMed:<a href="http://www.uniprot.org/citations/2293021" target="\_blank">2293021</a>, PubMed:<a href="http://www.uniprot.org/citations/23922390" target="\_blank">23922390</a>, PubMed:<a href="http://www.uniprot.org/citations/24847884" target="\_blank">24847884</a>, PubMed:<a href="http://www.uniprot.org/citations/26394692" target="\_blank">26394692</a>, PubMed:<a href="http://www.uniprot.org/citations/26968463" target="\_blank">26968463</a>, PubMed:<a href="http://www.uniprot.org/citations/29596046" target="\_blank">29596046</a>). 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

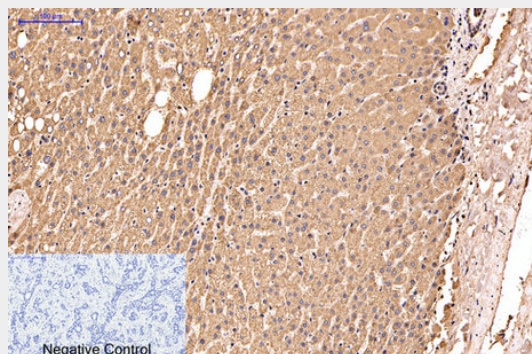
Detected in brain and in cerebrospinal fluid (at protein level).

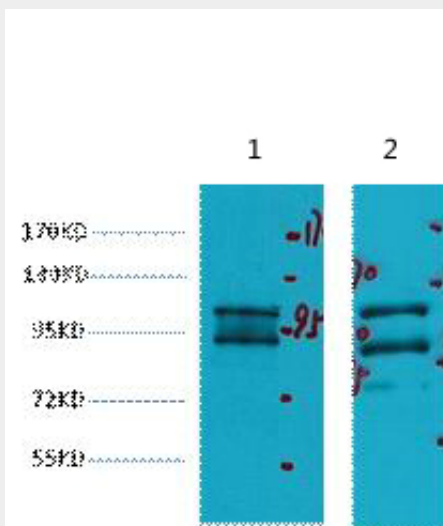
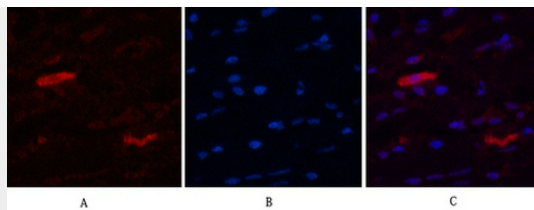
### IDE Monoclonal Antibody(3H4) - Protocols

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.