

**IDE Antibody**  
Rabbit mAb  
Catalog # AP91040

## Specification

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### IDE Antibody - Product Information

Application	WB, IHC
Primary Accession	<a href="#">P14735</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
INSULYSIN; Insulin degrading enzyme; IDE;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	117968 Da

### IDE Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human IDE
Description	This gene encodes a zinc metallopeptidase that degrades intracellular insulin, and thereby terminates insulins activity, as well as participating in intercellular peptide signalling by degrading diverse peptides such as glucagon, amylin, bradykinin, and kallidin. The preferential affinity of this enzyme for insulin results in insulin-mediated inhibition of the degradation of other peptides such as beta-amyloid.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

### IDE Antibody - 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>)

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

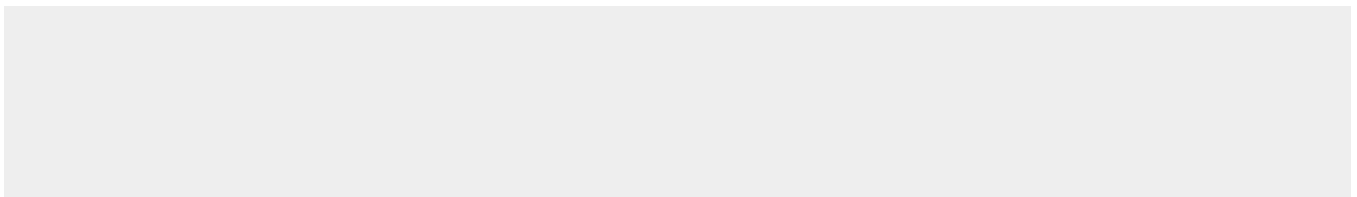
Detected in brain and in cerebrospinal fluid (at protein level).

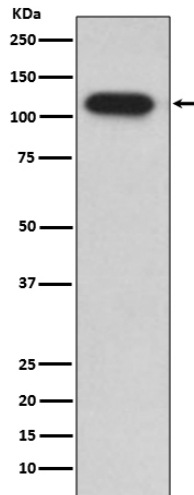
#### IDE Antibody - Protocols

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 Antibody - Images





Western blot analysis of IDE expression in HepG2 cell lysate.