

IDE Antibody
Rabbit Polyclonal Antibody
Catalog # ALS13658**Specification**

IDE Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB, IHC |
| Primary Accession | P14735 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Polyclonal |
| Calculated MW | 118kDa KDa |

IDE Antibody - Additional Information**Gene ID** 3416**Other Names**

Insulin-degrading enzyme, 3.4.24.56, Abeta-degrading protease, Insulin protease, Insulinase, Insulysin, IDE

Target/Specificity

Human insulin degrading enzyme. Predicted cross-reactivity based on amino acid sequence homology: mouse (94%), rat (95%), bovine (98%), zebrafish (90%).

Reconstitution & Storage

Aliquot and store at -20°C. Minimize freezing and thawing.

Precautions

IDE Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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: [10684867](http://www.uniprot.org/citations/10684867)target="_blank">10684867, PubMed: [17051221](http://www.uniprot.org/citations/17051221) target="_blank">17051221, PubMed: [17613531](http://www.uniprot.org/citations/17613531) target="_blank">17613531, PubMed: [18986166](http://www.uniprot.org/citations/18986166) target="_blank">18986166, PubMed: [19321446](http://www.uniprot.org/citations/19321446) target="_blank">19321446, PubMed: [21098034](http://www.uniprot.org/citations/21098034) target="_blank">21098034, PubMed: [2293021](http://www.uniprot.org/citations/2293021) target="_blank">2293021, PubMed: [23922390](http://www.uniprot.org/citations/23922390) target="_blank">23922390, PubMed: [24847884](http://www.uniprot.org/citations/24847884) target="_blank">24847884, PubMed: [26394692](http://www.uniprot.org/citations/26394692)

target="_blank">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).

Volume

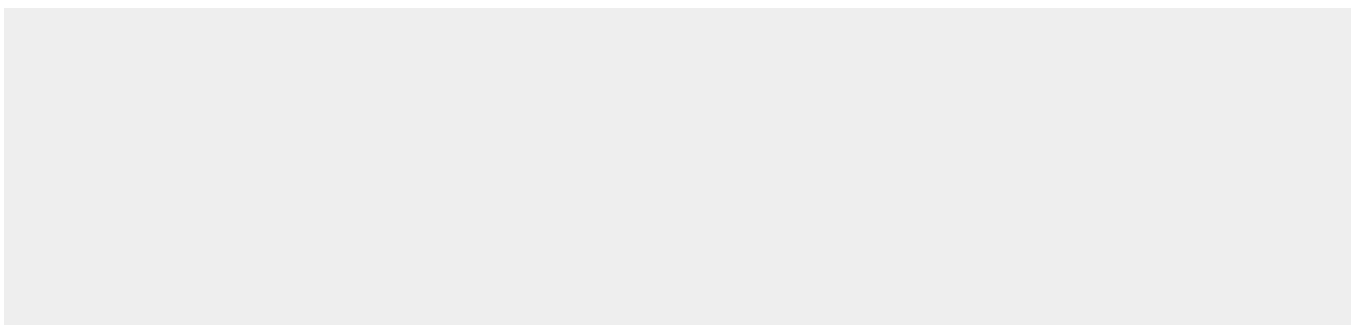
50 µl

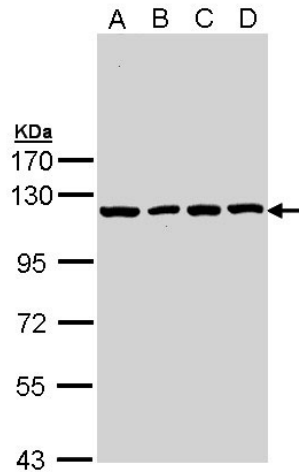
IDE Antibody - Protocols

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

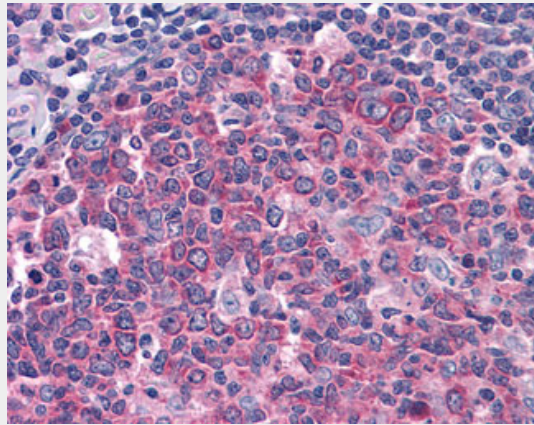
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

IDE Antibody - Images





Sample (30 ug of whole cell lysate).



Anti-IDE antibody IHC of human tonsil.

IDE Antibody - 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.

IDE Antibody - References

- Affholter J.A., et al. *Science* 242:1415-1418(1988).
- Affholter J.A., et al. *Mol. Endocrinol.* 4:1125-1135(1990).
- Ota T., et al. *Nat. Genet.* 36:40-45(2004).
- Deloukas P., et al. *Nature* 429:375-381(2004).
- Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.