

IDE Antibody (Internal)
Goat Polyclonal Antibody
Catalog # ALS13095**Specification**

IDE Antibody (Internal) - Product Information

Application	WB, IHC
Primary Accession	P14735
Reactivity	Human, Horse, Dog
Host	Goat
Clonality	Polyclonal
Calculated MW	118kDa KDa

IDE Antibody (Internal) - 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 IDE. This antibody is expected to recognize both reported isoforms (NP_004960.1 and NP_001159418.1).

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

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

IDE Antibody (Internal) - 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:2293021, PubMed:10684867, PubMed:26968463, PubMed:17051221, PubMed:17613531, PubMed:18986166, PubMed:19321446, PubMed:23922390, PubMed:24847884)

target="_blank">24847884, PubMed:26394692, PubMed:29596046, PubMed:21098034). 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 (PubMed:9830016, PubMed:26394692) (Probable). 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

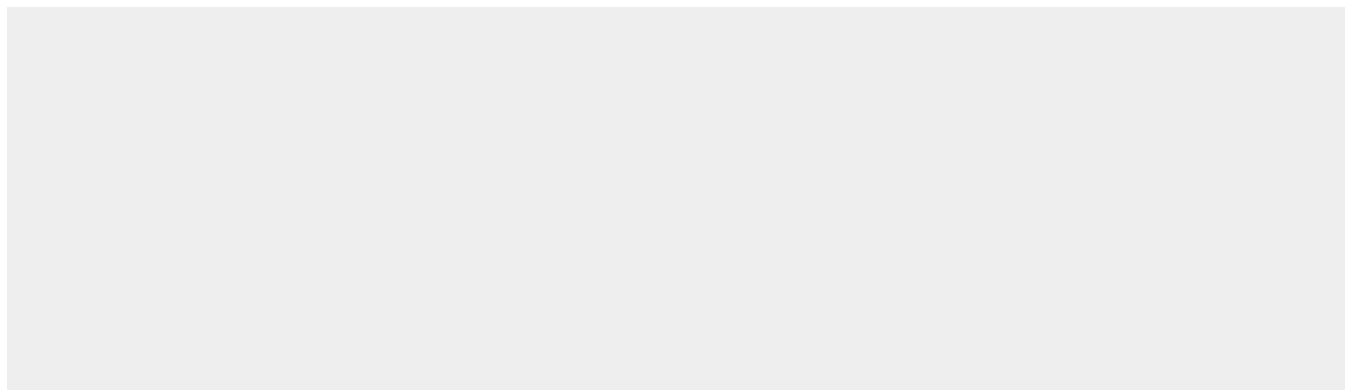
Detected in brain and in cerebrospinal fluid (at protein level).

IDE Antibody (Internal) - Protocols

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

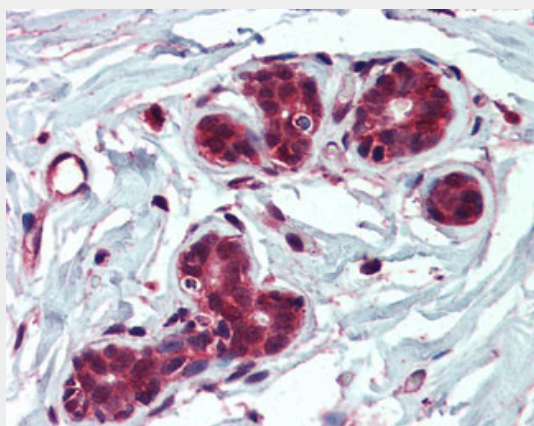
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

IDE Antibody (Internal) - Images

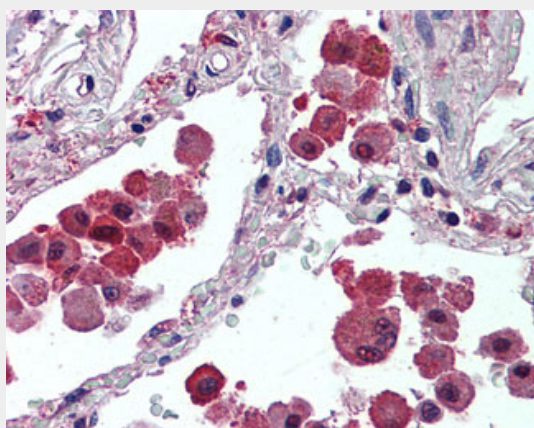


250kDa
150kDa
100kDa
75kDa
50kDa
37kDa
25kDa
20kDa
15kDa

Antibody (0.1 ug/ml) staining of K562 cell lysate (35 ug protein in RIPA buffer).



Anti-IDE antibody IHC of human breast.



Anti-IDE antibody IHC of human lung.

IDE Antibody (Internal) - 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 (Internal) - 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.