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# IDE Monoclonal Antibody(3H4)

Catalog # AP63337

## Product Information

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|---|---|
| **Application** | WB, IHC-P, IF, ICC |
| **Primary Accession** | P14735 |
| **Reactivity** | Human, Hamster |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Calculated MW** | 117968 |

## Additional Information

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|---|---|
| **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 IHC-P~~WB: 1:1000 IF 1:200 IHC 1:50-300 IF~~1:50~200 ICC~~N/A |
| **Format** | PBS, pH 7.4, containing 0.09% (W/V) sodium azide as Preservative and 50% Glycerol. |
| **Storage Conditions** | -20℃ |

## Protein Information

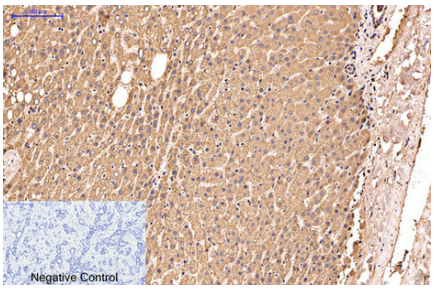
| | |
|---|---|
| **Name** | IDE {ECO:0000303\|PubMed:20364150, ECO:0000312\|HGNC:HGNC:5381} |
| **Function** | Plays a role in the cellular breakdown of insulin, APP peptides, IAPP peptides, natriuretic peptides, glucagon, bradykinin, kallidin, and other peptides, and thereby plays a role in intercellular 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: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 |

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| | 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). |

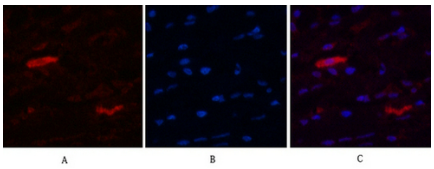
## Background

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.

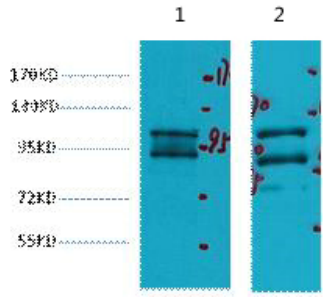
## Images




Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1,IDE Monoclonal Antibody(3H4) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.




Immunofluorescence analysis of Human-breast tissue. 1,IDE Monoclonal Antibody(3H4)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B




Western blot analysis of 1) Hela, 2) HepG2, diluted at 1:2000

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.