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KD-Validated Anti-IDE Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1556

Specification

KD-Validated Anti-IDE Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	P14735
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 118 kDa , observed , 118 kDa KDa**
Gene Name	**IDE**
Aliases	**IDE; Insulin Degrading Enzyme; Insulin-Degrading Enzyme; Antibodyeta-Degrading Protease; Insulin Protease; EC 3.4.24.56; Insulinase; Insulysin; INSULYSIN; EC 3.4.24**
Immunogen	**A synthesized peptide derived from human IDE**

KD-Validated Anti-IDE Rabbit Monoclonal Antibody - Additional Information

Gene ID	**3416**

Other Names
Insulin-degrading enzyme, 3.4.24.56, Abeta-degrading protease, Insulin protease, Insulinase, Insulysin, IDE {ECO:0000303|PubMed:20364150, ECO:0000312|HGNC:HGNC:5381}

KD-Validated Anti-IDE Rabbit Monoclonal 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, PubMed:17051221, PubMed:17613531, PubMed:18986166, PubMed:19321446, PubMed:21098034, PubMed:2293021, PubMed:23922390, PubMed:24847884, PubMed:26394692, PubMed:26968463, PubMed:<a href="http://www.uniprot.org/citations/29596046"

target="_blank">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).

KD-Validated Anti-IDE Rabbit Monoclonal 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 Cytomety
- Cell Culture

KD-Validated Anti-IDE Rabbit Monoclonal Antibody - Images

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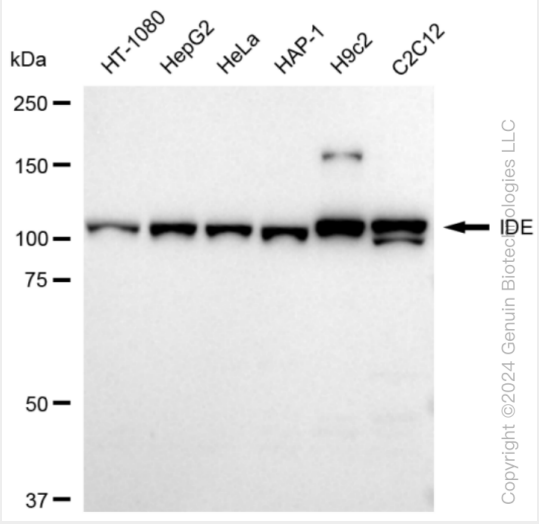
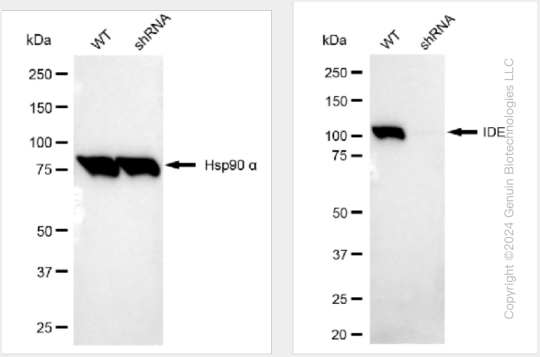
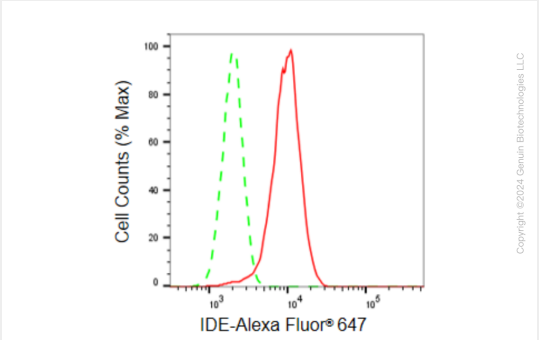


Western blotting analysis using anti-IDE antibody (Cat#AGI1556). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-IDE antibody (Cat#AGI1556, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-IDE antibody (Cat#AGI1556). IDE expression in wild type (WT) and IDE shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-IDE antibody (Cat#AGI1556, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of IDE expression in HepG2 cells using IDE antibody (Cat#AGI1556, 1:2,000). Green, isotype control; red, IDE.