Anti-Insulin degrading enzyme Antibody [JJ0949]

ET1701-97

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat, Zebrafish
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 118 kDa
Clone number:	JJ0949

Description: Insulin degrading enzyme (IDE), also known as insulinase, insulin protease or insulysin, cleaves the peptide hormone insulin with consequences for insulin response and resistance. IDE is a highly conserved thiol metalloprotease with ubiquitous expression including the brain. Since its discovery, IDE has been shown to degrade a variety of bioactive peptides. Recently the finding that IDE clears intracellular and extracellular amyloid products has spurred research into the link between IDE function and human neurodegenerative disease such as Alzheimer's.

Immunogen: Recombinant protein within Human Insulin degrading enzyme aa 1-106 / 1019.

Positive control: Zebrafish tissue lysate, Hela cell lysate, K562 cell lysate, human liver carcinoma tissue, human colon carcinoma tissue, human stomach carcinoma tissue, mouse colon tissue, hybrid fish (crucian-carp) heart tissue lysates.

Subcellular location: Cytoplasm, Cell membrane, Secreted.

Database links: SwissProt: P14735 Human | Q9JHR7 Mouse | P35559 Rat

Recommended Dilutions:

WB	1:1,000-1:2,000
IHC-P	1:50-1:200

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

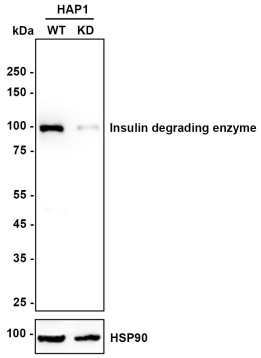

Fig1: Western blot analysis of Insulin degrading enzyme on different lysates with Rabbit anti-Insulin degrading enzyme antibody (ET1701-97) at 1/2,000 dilution.

Lane 1: HAP1-parental cell lysate
Lane 2: HAP1-Insulin degrading enzyme KD cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 118 kDa
Observed band size: 100 kDa

Exposure time: 18 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1701-97) at 1/2,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

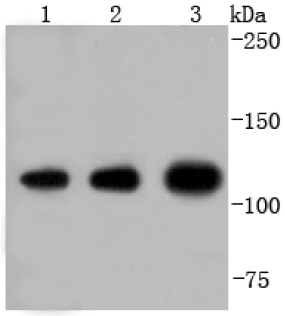

Fig2: Western blot analysis of Insulin degrading enzyme on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET1701-97, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: Zebrafish tissue lysate
Lane 2: Hela cell lysate
Lane 3: K562 cell lysate

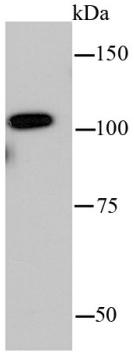

Fig3: Western blot analysis of Insulin degrading enzyme on hybrid fish (crucian-carp) heart tissue lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET1701-97, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

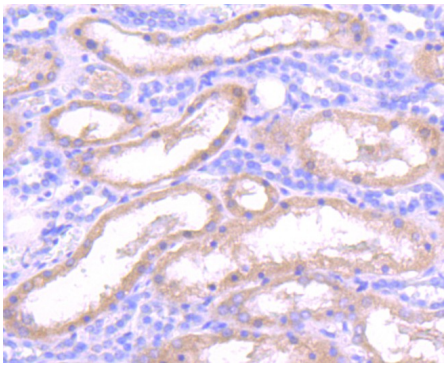

Fig4: Immunohistochemical analysis of paraffin-embedded human liver carcinoma tissue using anti-Insulin degrading enzyme antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1701-97, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

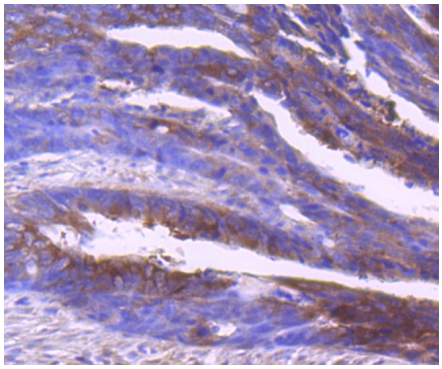

Fig5: Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using anti-Insulin degrading enzyme antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1701-97, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

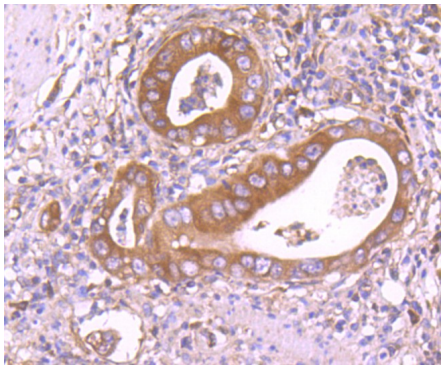

Fig6: Immunohistochemical analysis of paraffin-embedded human stomach carcinoma tissue using anti-Insulin degrading enzyme antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1701-97, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

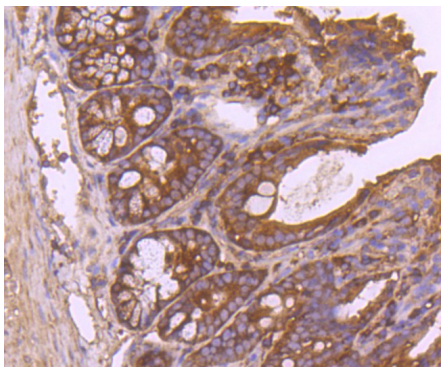

Fig7: Immunohistochemical analysis of paraffin-embedded mouse colon tissue using anti-Insulin degrading enzyme antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1701-97, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Ries M et al. The anti-inflammatory Annexin A1 induces the clearance and degradation of the amyloid- peptide. J Neuroinflammation 13:234 (2016).
2. Santos RS et al. Lacking of estradiol reduces insulin exocytosis from pancreatic -cells and increases hepatic insulin degradation. Steroids 114:16-24 (2016).