abcam

Product datasheet

Anti-Insulin degrading enzyme / IDE antibody [EPR6099] ab109538

KO VALIDATED Recombinant RabMAb

4 References 5 Images

Overview

Product name	Anti-Insulin degrading enzyme / IDE antibody [EPR6099]
Description	Rabbit monoclonal [EPR6099] to Insulin degrading enzyme / IDE
Host species	Rabbit
Tested applications	**Suitable for:** WB, Flow Cyt (Intra) **Unsuitable for:** IHC-P or IP
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HAP1, HeLa, HepG2, A375, and K562 cell lysates
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR6099
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab109538 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

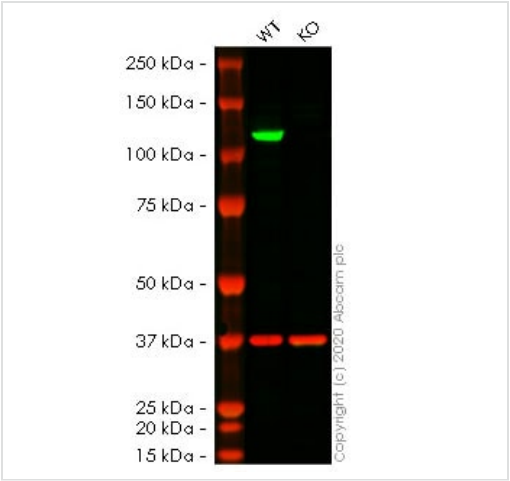
Application	Abreviews	Notes
WB		1/10000 - 1/50000. Predicted molecular weight: 118 kDa.
Flow Cyt (Intra)		Use at an assay dependent concentration.

Application notes Is unsuitable for IHC-P or IP.

Target

Function	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.
Sequence similarities	Belongs to the peptidase M16 family.
Post-translational modifications	The N-terminus is blocked.
Cellular localization	Cytoplasm. Cell surface. Present at the cell surface of neuron cells. The membrane-associated isoform is approximately 5 kDa larger than the known cytosolic isoform.

Images



Western blot - Anti-Insulin degrading enzyme / IDE antibody [EPR6099] (ab109538)

All lanes : Anti-Insulin degrading enzyme / IDE antibody [EPR6099] (ab109538) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : IDE knockout HeLa cell lysate

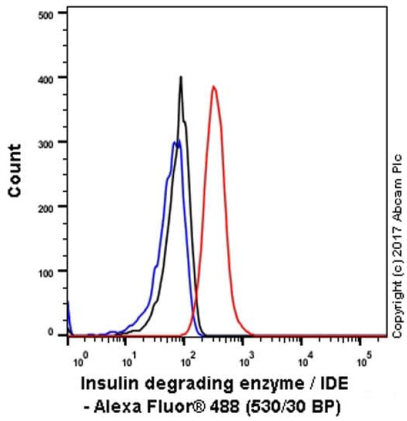
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

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

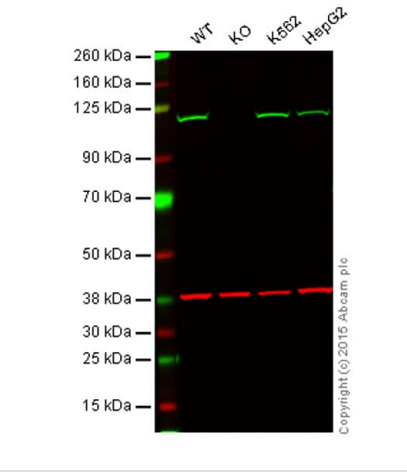
Lanes 1- 2: Merged signal (red and green). Green - ab109538 observed at 118 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

ab109538 was shown to react with Insulin degrading enzyme / IDE in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab261755** (knockout cell lysate **ab257197**) was used. Wild-type HeLa and IDE knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab109538 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Flow Cytometry (Intracellular) - Anti-Insulin degrading enzyme / IDE antibody [EPR6099] (ab109538)

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling Insulin degrading enzyme / IDE with purified ab109538 at 1/150 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti-rabbit IgG (Alexa Fluor® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.



Western blot - Anti-Insulin degrading enzyme / IDE antibody [EPR6099] (ab109538)

All lanes : Anti-Insulin degrading enzyme / IDE antibody [EPR6099] (ab109538) at 1/2000 dilution

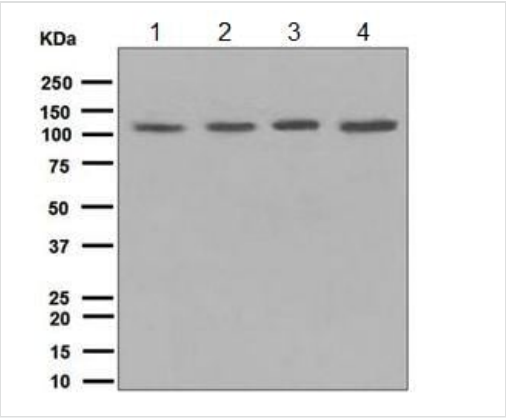
Lane 1 : Wild-type HAP1 cell lysate
Lane 2 : IDE knockout HAP1 cell lysate
Lane 3 : K562 cell lysate
Lane 4 : HepG2 cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 118 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab109538 observed at 118 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab109538 was shown to specifically react with IDE in wild-type HAP1 cells. No band was observed when IDE knockout samples were examined. Wild-type and IDE knockout samples were subjected to SDS-PAGE. ab109538 and **ab8245** (loading control to GAPDH) were both diluted 1/2000 and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed **ab216776** secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Insulin degrading enzyme / IDE antibody [EPR6099] (ab109538)

All lanes : Anti-Insulin degrading enzyme / IDE antibody [EPR6099] (ab109538) at 1/10000 dilution

Lane 1 : HeLa cell lysate
Lane 2 : HepG2 cell lysate
Lane 3 : A375 cell lysate
Lane 4 : K562 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP-labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 118 kDa

Anti-Insulin degrading enzyme / IDE antibody [EPR6099] (ab109538)

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