

Product datasheet

Anti-Insulin antibody [EPR17359] ab181547

Recombinant **RabMAb**

★★★★★ 8 Abreviews 11 References 9 Images

Overview

Product name	Anti-Insulin antibody [EPR17359]
Description	Rabbit monoclonal [EPR17359] to Insulin
Host species	Rabbit
Tested applications	Suitable for: IHC-FoFr, WB, IHC-P, ICC/IF, IHC-Fr
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment within Human Insulin aa 1 to the C-terminus. The exact sequence is proprietary. Database link: P01308
Positive control	IHC-P: Human, mouse and rat pancreas tissue. ICC/IF: BxPC-3 cells. IHC-FoFr: Mouse pancreas tissue. WB: Mouse pancreas lysate

General notes

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

This product is a [recombinant rabbit monoclonal antibody](#).

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 long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR17359
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab181547** 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
IHC-FoFr		1/1000.
WB		Use at an assay dependent concentration. Predicted molecular weight: 12 kDa.
IHC-P	★★★★★	1/64000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/200.
IHC-Fr	★★★★★	1/2000.

Target

Function

Insulin decreases blood glucose concentration. It increases cell permeability to monosaccharides, amino acids and fatty acids. It accelerates glycolysis, the pentose phosphate cycle, and glycogen synthesis in liver.

Involvement in disease

Defects in INS are the cause of familial hyperproinsulinemia (FHPRI) [MIM:176730].

Defects in INS are a cause of diabetes mellitus insulin-dependent type 2 (IDDM2) [MIM:125852]. IDDM2 is a multifactorial disorder of glucose homeostasis that is characterized by susceptibility to ketoacidosis in the absence of insulin therapy. Clinical features are polydipsia, polyphagia and polyuria which result from hyperglycemia-induced osmotic diuresis and secondary thirst. These derangements result in long-term complications that affect the eyes, kidneys, nerves, and blood vessels.

Defects in INS are a cause of diabetes mellitus permanent neonatal (PNDM) [MIM:606176]. PNDM is a rare form of diabetes distinct from childhood-onset autoimmune diabetes mellitus type 1. It is characterized by insulin-requiring hyperglycemia that is diagnosed within the first months of life. Permanent neonatal diabetes requires lifelong therapy.

Defects in INS are a cause of maturity-onset diabetes of the young type 10 (MODY10) [MIM:613370]. MODY10 is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease.

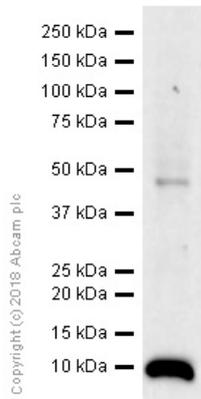
Sequence similarities

Belongs to the insulin family.

Cellular localization

Secreted.

Images



Western blot - Anti-Insulin antibody [EPR17359] (ab181547)

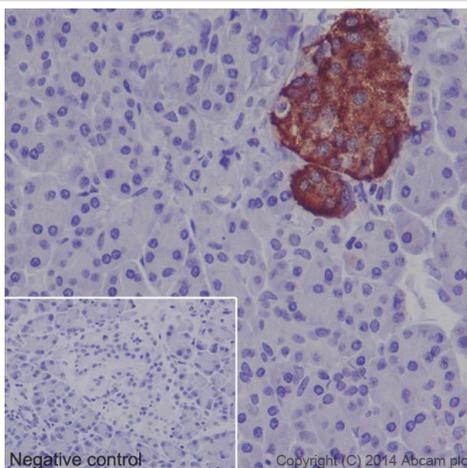
Anti-Insulin antibody [EPR17359] (ab181547) at 1/1000 dilution +
 Mouse pancreas lysate 20 µg at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 12 kDa

Observed band size: 12 kDa



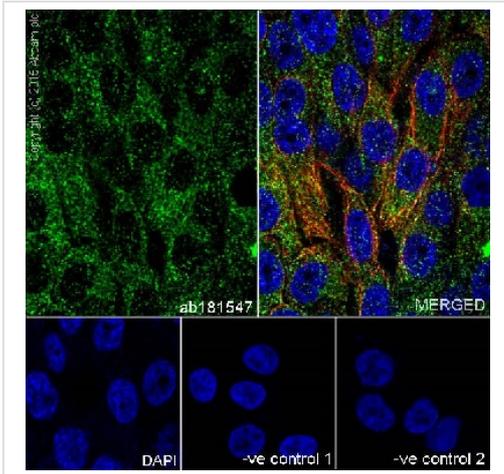
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Insulin antibody [EPR17359] (ab181547)

Immunohistochemical analysis of paraffin-embedded human pancreas tissue labeling Insulin with ab181547 at 1/64000 dilution, followed by Anti-Rabbit HRP (ab97051) at 1/500 dilution.

Cytoplasm staining on islet cells of human pancreas is observed. Counterstained with hematoxylin.

Negative control: PBS instead of primary antibody; secondary antibody is Anti-Rabbit HRP (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Insulin antibody [EPR17359] (ab181547)

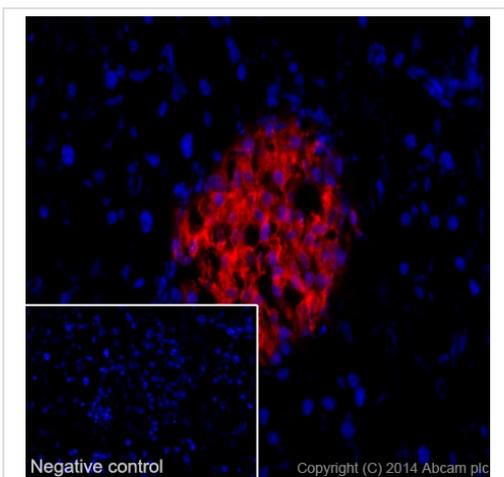
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized BxPC-3 (Human pancreas adenocarcinoma cells) cells labeling Insulin with ab181547 at 1/200 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/400 dilution (green).

Confocal image shows cytoplasmic staining on BxPC-3 cells. The nuclear counterstain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/500 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).

The negative controls are as follows:-

-ve control 1: - ab181547 at 1/200 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.

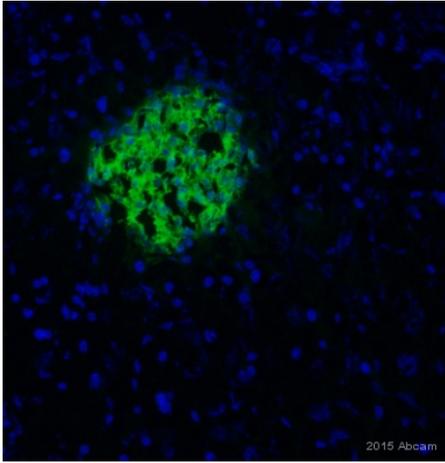
-ve control 2: - ab7291 (anti-Tubulin mouse mAb) at 1/500 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/400 dilution.



Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-Insulin antibody [EPR17359] (ab181547)

Immunohistochemical analysis of 4% paraformaldehyde perfusion fixed, frozen section of mouse pancreas tissue labeling Insulin with ab181547 at 1/1000 dilution, followed by Donkey anti-rabbit Alexa Fluor®594 at 1/1000 dilution. Cytoplasm staining on islet cells of mouse pancreas is observed. Counter stained with DAPI.

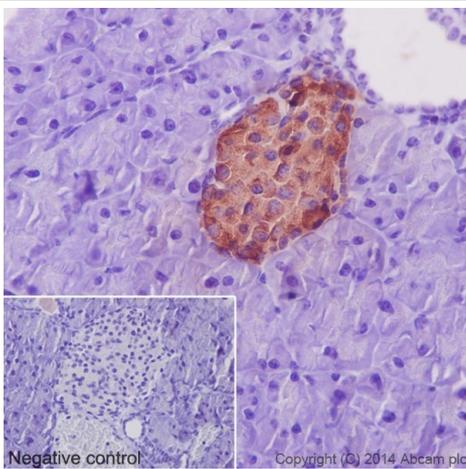
Negative control: PBS instead of primary antibody; secondary antibody is Donkey anti-rabbit Alexa Fluor®594 at 1/1000 dilution.



Immunohistochemistry (Frozen sections) - Anti-Insulin antibody [EPR17359] (ab181547)

This image is courtesy of an anonymous Abreview.

Immunohistochemical analysis of formaldehyde fixed, frozen section of mouse pancreas tissue labeling Insulin with ab181547 at 1/2000 dilution, followed by Goat Alexa Fluor[®]488 at 1/1000 dilution. Permeabilised with 0.5% Triton X100.

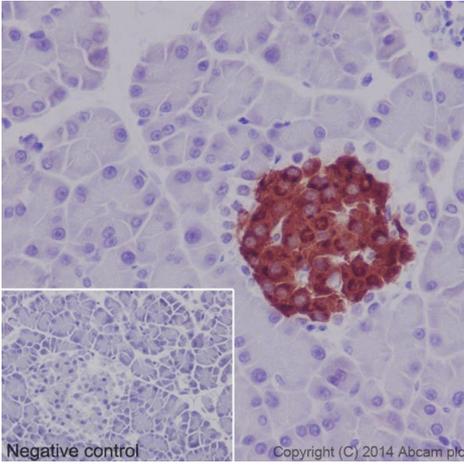


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Insulin antibody [EPR17359] (ab181547)

Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue labeling Insulin with ab181547 at 1/64000 dilution, followed by Anti-Rabbit HRP (ab97051) at 1/500 dilution. Cytoplasm staining on islet cells of mouse pancreas is observed. Counterstained with hematoxylin.

Negative control: PBS instead of primary antibody; secondary antibody is Anti-Rabbit HRP (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

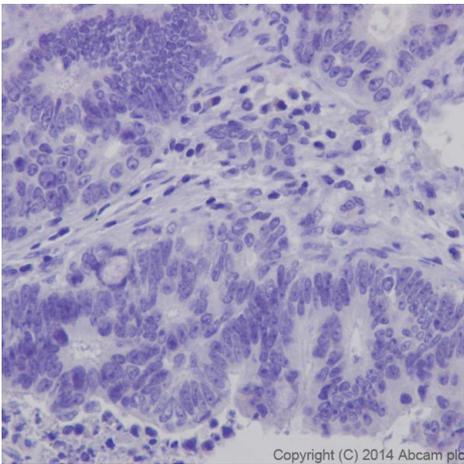


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Insulin antibody [EPR17359] (ab181547)

Immunohistochemical analysis of paraffin-embedded rat pancreas tissue labeling Insulin with ab181547 at 1/64000 dilution, followed by Anti-Rabbit HRP (ab97051) at 1/500 dilution. Cytoplasm staining on islet cells of rat pancreas is observed. Counterstained with hematoxylin.

Negative control: PBS instead of primary antibody; secondary antibody is Anti-Rabbit HRP (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

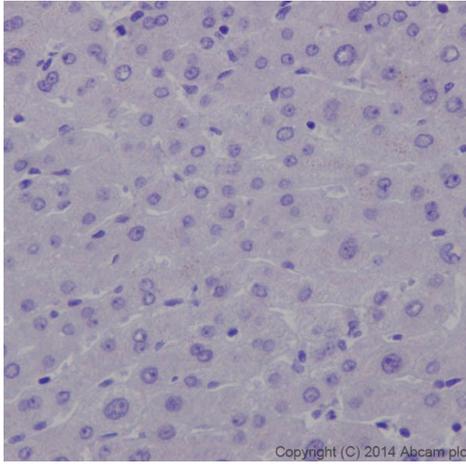


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Insulin antibody [EPR17359] (ab181547)

Immunohistochemical analysis of paraffin-embedded human adenocarcinoma of colon tissue with ab181547 at 1/64000 dilution, followed by Anti-Rabbit HRP (ab97051) at 1/500 dilution.

Negative staining on human colonic adenocarcinoma is observed. Counterstained with hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Insulin antibody [EPR17359] (ab181547)

Immunohistochemical analysis of paraffin-embedded human liver tissue with ab181547 at 1/64000 dilution, followed by Anti-Rabbit HRP (ab97051) at 1/500 dilution.

Negative staining on human liver tissue is observed. Counterstained with hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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