

Product datasheet

Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker ab109517

Recombinant RabMAb

★★★★★ [6 Abreviews](#) [40 References](#) [11 Images](#)

Overview

Product name	Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker
Description	Rabbit monoclonal [EP4182] to Islet 1 - Neural Stem Cell Marker
Host species	Rabbit
Specificity	86% identities with Islet 2
Tested applications	Suitable for: ICC/IF, WB, IP, Flow Cyt (Intra)
Species reactivity	Reacts with: Mouse, Chicken, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: K562, HeLa, Jurkat and SH-SY5Y cell lysates. IHC-Fr: Chicken hindbrain tissue. ICC/IF: U-87 MG cell line.
General notes	<p>Insulin gene enhancer protein ISL-1 is a protein encoded by the ISL1 gene. Among other roles, ISL-1 plays a part in the embryogenesis of pancreatic islets of Langerhans and some models, deficiency have shown failure of neural tube motor neurons to differentiate.</p> <p>Rat: We have preliminary testing data to indicate this antibody may not react with these species. Please contact us for more information.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p>

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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP4182
Isotype	IgG

Applications

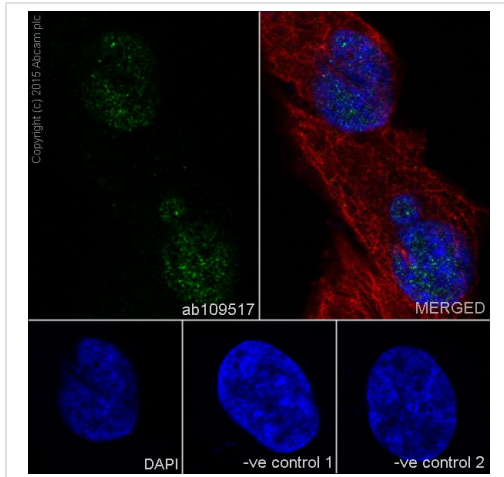
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab109517 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★ (1)	1/250. For unpurified use at 1/50 - 1/100.
WB		1/10000 - 1/50000. Predicted molecular weight: 39 kDa.
IP		1/10 - 1/100.
Flow Cyt (Intra)		Use at an assay dependent concentration. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target

Function	Binds to one of the cis-acting domain of the insulin gene enhancer.
Tissue specificity	Expressed in subsets of neurons of the adrenal medulla and dorsal root ganglion, inner nuclear and ganglion cell layers in the retina, the pineal and some regions of the brain.
Sequence similarities	Contains 1 homeobox DNA-binding domain. Contains 2 LIM zinc-binding domains.
Cellular localization	Nucleus.

Images

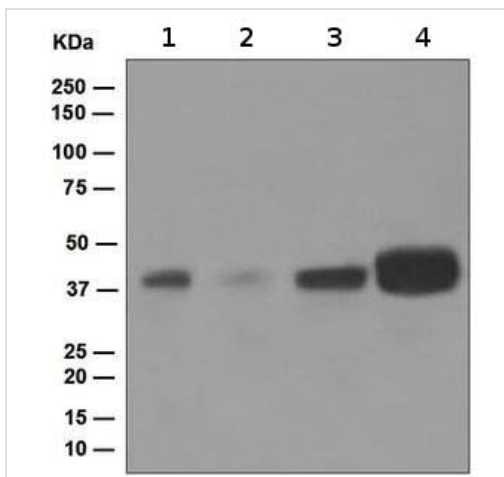


Immunocytochemistry/ Immunofluorescence - Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker (ab109517)

Immunocytochemistry/Immunofluorescence analysis of SH-SY-5Y (human neuroblastoma) cells labelling Islet 1 with purified ab109517 at 1/250. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor[®] 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. **ab7291**, a mouse anti-tubulin (1/1000) and **ab150120**, an Alexa Fluor[®] 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/100) and secondary antibody, **ab150120**, an Alexa Fluor[®] 594-conjugated goat anti-mouse IgG (1/500).

Control 2: **ab7291** (1/1000) and secondary antibody, **ab150077**, an Alexa Fluor[®] 488-conjugated goat anti-rabbit IgG (1/500).



Western blot - Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker (ab109517)

All lanes : Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker (ab109517) at 1/10000 dilution (unpurified)

Lane 1 : K562 (Human chronic myelogenous leukemia cell line from bone marrow) cell lysate

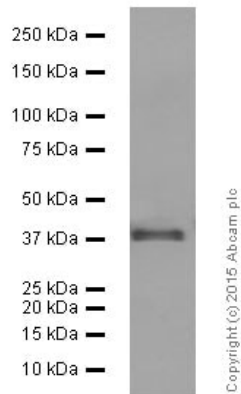
Lane 2 : HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysate

Lane 3 : Jurkat (Human T cell leukemia cell line from peripheral blood) cell lysate

Lane 4 : SH-SY5Y (Human neuroblastoma cell line from bone marrow) cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 39 kDa



Western blot - Anti-Islet 1 antibody [EP4182] -
Neural Stem Cell Marker (ab109517)

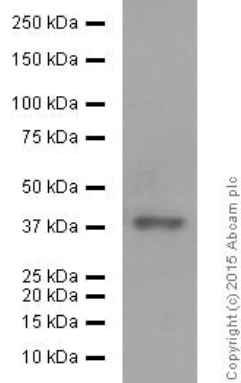
Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker (ab109517) at 1/50000 dilution (purified) + RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) cell lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 39 kDa

Blocking/Dilution buffer and concentration: 5% NFDm/TBST.



Western blot - Anti-Islet 1 antibody [EP4182] -
Neural Stem Cell Marker (ab109517)

Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker (ab109517) at 1/10000 dilution (purified) + UMNSAH/DF-1 cell lysate at 20 µg

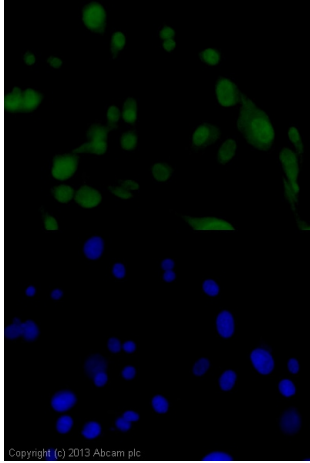
Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 39 kDa

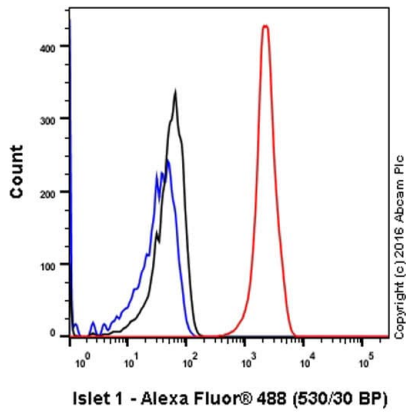
Blocking buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm /TBST.



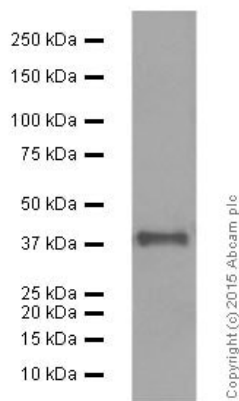
Immunocytochemistry/Immunofluorescence analysis of U-87 MG (Human glioblastoma-astrocytoma epithelial cell line) cells labeling Islet 1 with unpurified ab109517.

Immunocytochemistry/ Immunofluorescence - Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker (ab109517)



Intracellular Flow Cytometry analysis of SH-SY5Y (human neuroblastoma) cells labeling Islet 1 with purified ab109517 at 1/50 dilution (10µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (1/2000) 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) was used as the unlabeled control.

Flow Cytometry (Intracellular) - Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker (ab109517)



Western blot - Anti-Islet 1 antibody [EP4182] -
Neural Stem Cell Marker (ab109517)

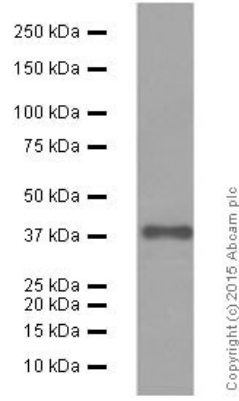
Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker (ab109517) at 1/50000 dilution (purified) + HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 39 kDa

Blocking/Dilution buffer and concentration: 5% NFDm/TBST.



Western blot - Anti-Islet 1 antibody [EP4182] -
Neural Stem Cell Marker (ab109517)

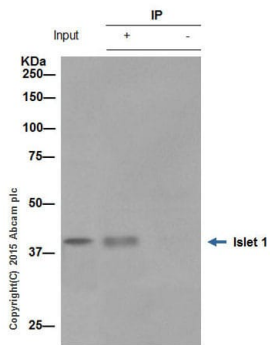
Anti-Islet 1 antibody [EP4182] - Neural Stem Cell Marker (ab109517) at 1/50000 dilution (purified) + K562 (Human chronic myelogenous leukemia cell line from bone marrow) cell lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 39 kDa

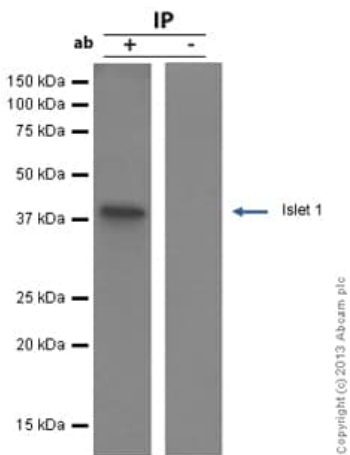
Blocking/Dilution buffer and concentration: 5% NFDm/TBST.



Immunoprecipitation - Anti-Islet 1 antibody [EP4182]
 - Neural Stem Cell Marker (ab109517)

ab109517 (purified) at 1/30 immunoprecipitating Islet 1 in Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate. 10 µg of cell lysate was present in the input. For western blotting, a HRP-conjugated Veriblot for IP Detection Reagent (**ab131366**) (1/1,500) was used for detection. A rabbit monoclonal IgG (**ab172730**) was used instead of **ab128913** as a negative control (Lane 3).

Blocking/Dilution buffer and concentration: 5% NFDm/TBST.



Immunoprecipitation - Anti-Islet 1 antibody [EP4182]
 - Neural Stem Cell Marker (ab109517)

ab109517 (unpurified) immunoprecipitating Islet 1 in Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Islet 1 antibody [EP4182] - Neural Stem Cell
Marker (ab109517)

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