

Product datasheet

Anti-Islet 1 antibody [1H9] ab86472

KO VALIDATED

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Overview

Product name	Anti-Islet 1 antibody [1H9]
Description	Mouse monoclonal [1H9] to Islet 1
Host species	Mouse
Specificity	In western blot, we observe a specific band at ~40kDa which is not seen in KO cell lines. A cross-reactive band was observed in the wild-type and knockout cells. The additional band below this band of interest is seen at ~38kDa in both the WT and KO cells. We are unsure as to the identity of these extra bands.
Tested applications	Suitable for: Flow Cyt, WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Human, Recombinant fragment
Immunogen	Recombinant fragment corresponding to Human Islet 1 aa 150-349. Purified recombinant fragment of Human Islet 1 expressed in E. Coli Database link: P61371
Positive control	Transfected HEK293 cell lysate. Human lung cancer tissue and cervical carcinoma tissue.
General notes	<p>This product was changed from ascites to supernatant. Lot no's high than GR141006-29 are from Tissue Culture Supernatant</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.05% Sodium azide Constituent: PBS

Purity	Protein G purified
Purification notes	Purified from tissue culture supernatant.
Clonality	Monoclonal
Clone number	1H9
Isotype	IgG1

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab86472 in the following tested applications.

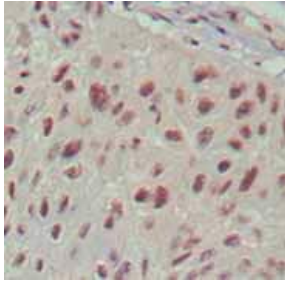
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		1/50 - 1/100. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB		1/500 - 1/2000. Predicted molecular weight: 39 kDa.
IHC-P		1/200 - 1/1000.
ICC/IF		1/200 - 1/1000.

Target

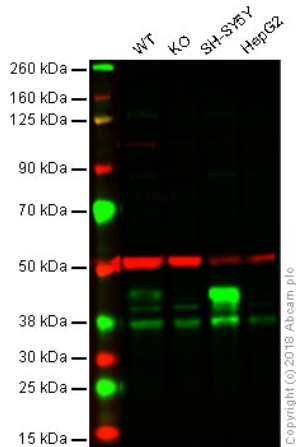
Function	Binds to one of the cis-acting domain of the insulin gene enhancer.
Tissue specificity	Expressed in subsets of neurons of the adrenal medulla and dorsal root ganglion, inner nuclear and ganglion cell layers in the retina, the pineal and some regions of the brain.
Sequence similarities	Contains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

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Islet 1 antibody [1H9] (ab86472)

ab86472 at a 1/200 dilution staining Islet 1 in human lung cancer tissue. DAB staining shows nuclear localisation.



Western blot - Anti-Islet 1 antibody [1H9] (ab86472)

All lanes : Anti-Islet 1 antibody [1H9] (ab86472) at 1/500 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

Lane 2 : ISL1 (Islet 1) knockout HAP1 whole cell lysate

Lane 3 : SH-SY5Y whole cell lysate

Lane 4 : HepG2 whole cell lysate

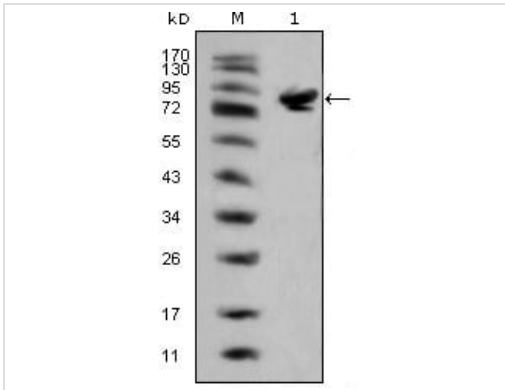
Lysates/proteins at 20 µg per lane.

Predicted band size: 39 kDa

Observed band size: 40 kDa

Lanes 1 -4: Merged signal (red and green). Green - ab86472 observed at 40 kDa. Red - loading control, [ab176560](#), observed at 50 kDa.

ab86472 was shown to recognize Islet 1 in wild-type HAP1 cells as signal was lost at the expected MW in Islet 1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and Islet 1 knockout samples were subjected to SDS-PAGE. ab86472 and [ab176560](#) (Rabbit anti-alpha Tubulin loading control) were incubated overnight at 4°C at 1/500 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed [ab216772](#) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed [ab216777](#) secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

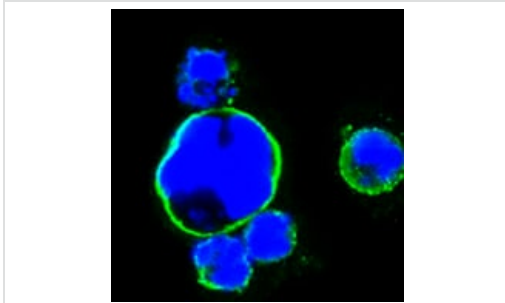


Western blot - Anti-Islet 1 antibody [1H9] (ab86472)

Anti-Islet 1 antibody [1H9] (ab86472) at 1/500 dilution + HEK293 cells transfected with full length Islet 1 (aa1-349)-hlgGFc

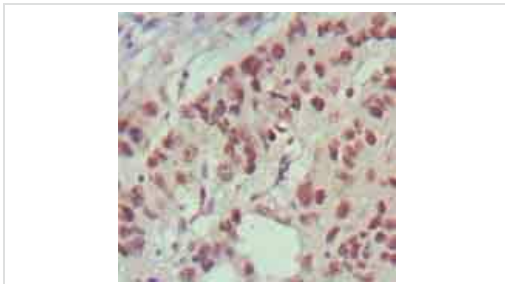
Predicted band size: 39 kDa

Note: The molecular weight is larger than expected, as the recombinant protein is not the endogenous protein, but rather the fc-fusion protein



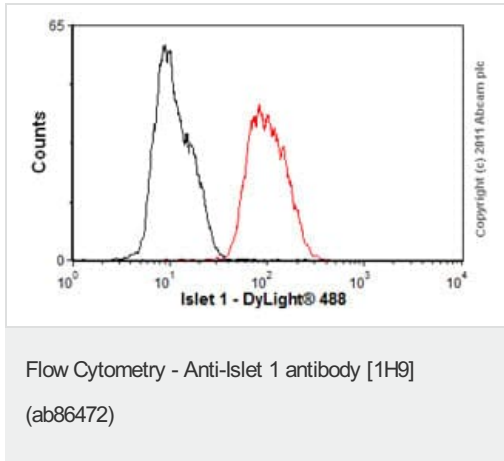
Immunocytochemistry/ Immunofluorescence - Anti-Islet 1 antibody [1H9] (ab86472)

Confocal immunofluorescence analysis of HEK293 cells trasfected with full-length Islet 1-hlgGFc using ab86472 at 1/150 dilution (green). Blue: DRAQ5 fluorescent DNA dye.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Islet 1 antibody [1H9] (ab86472)

ab86472 at a 1/200 dilution staining Islet 1 in human cervical carcinoma tissue. DAB staining shows nuclear localization.



Overlay histogram showing SH-SY5Y cells stained with ab86472 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab86472, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive result in SH-SY5Y cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween for 20 min used under the same conditions.

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