


Anti-Islet 1 antibody ab20670

★★★★★ [17 Abreviews](#) [83 References](#) [9 Images](#)

Overview

Product name	Anti-Islet 1 antibody
Description	Rabbit polyclonal to Islet 1
Host species	Rabbit
Specificity	<p>ab20670 might also detect rat and human Islet 2 protein as the immunogen used to raise this ab20670 is 86% identical to rat and human Islet 2. This has not been tested.</p> <p>Replenishment batches of our polyclonal antibody, ab20670 are tested in IHC-P. Previous batches were additionally validated in ICC/IF and IHC-Fr. These applications are still expected to work and are covered by our Abpromise guarantee. You may also be interested in our alternative recombinant antibody, ab109517.</p>
Tested applications	Suitable for: IHC-P, ICC/IF, IHC-Fr
Species reactivity	<p>Reacts with: Mouse, Rat, Human, Apterionotus leptorhynchus</p> <p>Predicted to work with: Chicken, Zebrafish </p>
Immunogen	<p>Synthetic peptide corresponding to Human Islet 1 aa 300 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin.</p> <p>(Peptide available as ab21995, ab21996)</p>
General notes	<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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: PBS</p>

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab20670 in the following tested applications.

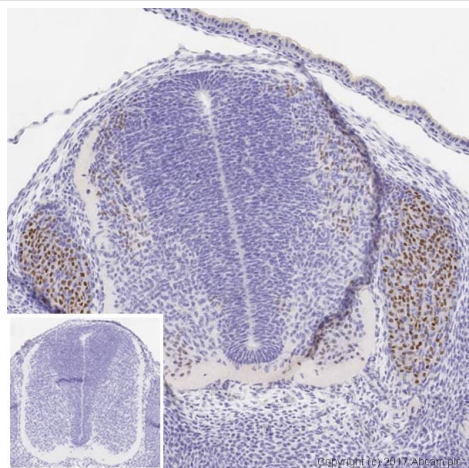
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★★ (3)	Use a concentration of 0.5 - 1 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF	★★★★★ (3)	Use a concentration of 2 µg/ml.
IHC-Fr	★★★★★ (5)	1/500.

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.

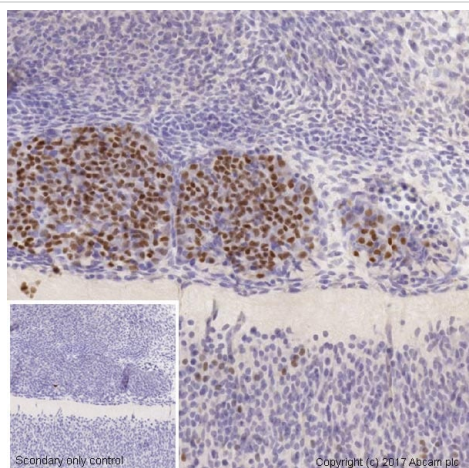
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Islet 1 antibody (ab20670)

IHC image of Islet 1 staining in a section of formalin fixed, paraffin embedded mouse embryo E12, performed on a Leica Bond™ system using the standard protocol B. The section was pre-treated using heat mediated antigen retrieval (EDTA based pH 9.0 solution, epitope retrieval solution 2) for 20 mins. The section was then incubated with ab20670, 0.5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

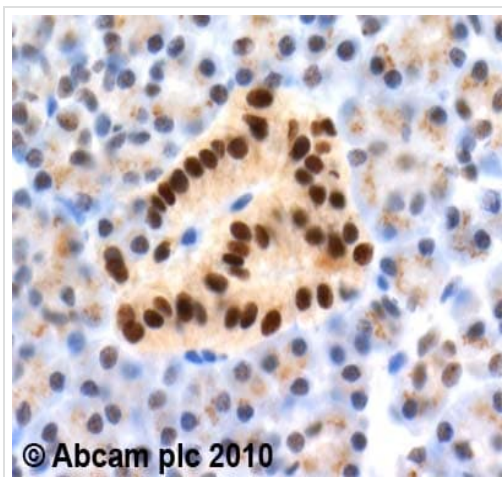
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Islet 1 antibody (ab20670)

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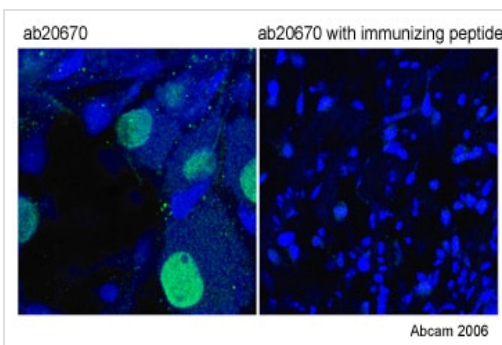
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Islet 1 antibody (ab20670)

ab20670 2µg/ml staining ISLET1 in human pancreas using an automated system (DAKO Autostainer Plus). Using this protocol there is strong nuclear and weak cytoplasmic staining primarily in the pancreatic islet.

Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H₂O₂ in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.



Immunocytochemistry/ Immunofluorescence - Anti-Islet 1 antibody (ab20670)

This image is courtesy of Randal Moldrich, CNRS UMR7637, ESPCI, France

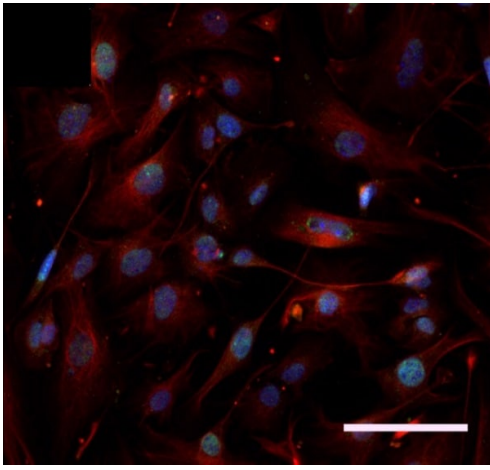
Dorsal root ganglion explants were dissected from 16 day-old rat embryos and cultured for 6 hours in vitro with Neurobasal Medium containing B27 supplement.

Nuclei stained positive for anti-Islet 1 antibody ab20670 at 2µg/ml. As would be expected, not all cells in this preparation were Islet 1-positive. Pre-incubation of ab20670 with the immunizing peptide **ab21996** resulted in complete blocking of the antibody.

Green = ab20670

Blue = To-pro-3 nuclear stain

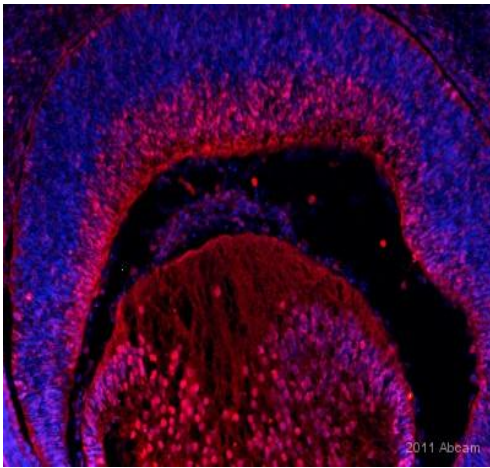
The level of magnification is different in each image.



Immunocytochemistry/ Immunofluorescence - Anti-Islet 1 antibody (ab20670)

Image from Ifkovits, Jamie L. et al. PLoS ONE 9.2 (2014): e89678. doi: 10.1371/journal.pone.0089678. Fig S3B. Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>

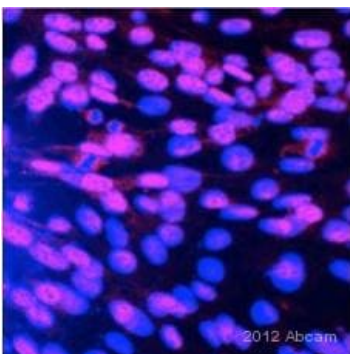
Immunocytochemistry/ Immunofluorescence analysis of adult mouse cardiac fibroblasts labeling Islet 1 with ab20670 at 1/100 dilution (green). Samples were fixed using 4% PFA with 0.25% TritonX-100. Scale bar is 100 μ M.



Immunohistochemistry (Frozen sections) - Anti-Islet 1 antibody (ab20670)

This image is courtesy of an anonymous abreview.

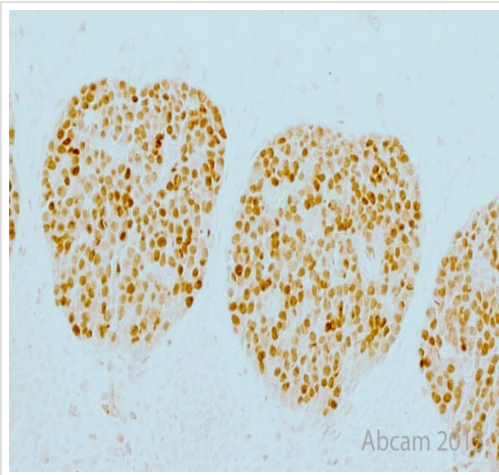
Immunohistochemistry (Frozen sections) analysis of mouse brain tissue sections labeling Islet 1 with ab20670 at 1/200 dilution. The tissue was fixed with paraformaldehyde followed by blocking with 5% serum for 1 hour at 25°C. The tissue was incubated with ab20670 in PBST for 12 hours at 4°C. A polyclonal donkey anti-rabbit Alexa Fluor® 594 secondary antibody was used at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Islet 1 antibody (ab20670)

This image is courtesy of an anonymous abreview.

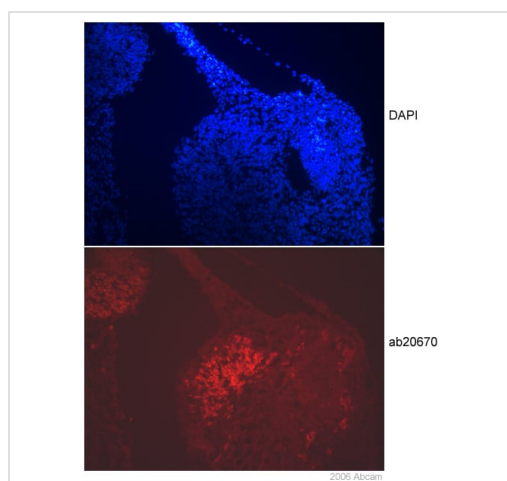
Immunocytochemistry/ Immunofluorescence analysis of mouse dorsal root ganglia (DRG) neurons labeling Islet 1 with ab20670 at 1/200 dilution. Cells were fixed with paraformaldehyde and permeabilized with Tween 20. Blocking of the cells was performed with 2% serum for 30 minutes at 21°C, followed by incubation with ab20670 for 18 hours at 4°C. A polyclonal goat anti-rabbit Alexa Fluor® 568 secondary antibody was used at 1/1000 dilution. DAPI was used to counterstain.



Immunohistochemical analysis of paraffin-embedded mouse E11.5 somites labelling Islet 1 with ab20670 at 1/100 dilution, followed by BioGenex polymer-HRP reagent (undiluted according to manufacturer).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Islet 1 antibody (ab20670)

This image is courtesy of an anonymous collaborator.



ab20670 detected Islet 1 in the nucleus of frozen sections of E11.5 mouse embryonic brain using 1 ug/ml of antibody. Brighter staining may be achieved using a greater concentration of antibody, e.g. 2.5 or 5 ug/ml.

Immunohistochemistry (Frozen sections) - Anti-Islet 1 antibody (ab20670)

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