Product datasheet

Anti-Insulin antibody ab7842

★★★★★ 28 Abreviews  155 References  5 Images

Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-Insulin antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Guinea pig polyclonal to Insulin</td>
</tr>
<tr>
<td>Host species</td>
<td>Guinea pig</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: IP, IHC-FoFr, ICC/IF, IHC-P, IHC-Fr, Flow Cyt</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rat, Human, Syrian hamster, Other species</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Insulin (Human).</td>
</tr>
<tr>
<td>General notes</td>
<td>See our recombinant rabbit monoclonal available for this target: ab181547</td>
</tr>
</tbody>
</table>

Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Store at 4°C (stable for up to 12 months). Store at +4°C. Do Not Freeze.</td>
</tr>
</tbody>
</table>
| Storage buffer | pH: 7.40  
Preservative: 0.1% Sodium azide  
Constituent: PBS |
| Purification notes | Protein A/G purified |
| Clonality    | Polyclonal |
| Isotype      | IgG |

Applications

Our Abpromise guarantee covers the use of ab7842 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 24336520</td>
</tr>
<tr>
<td>IHC-FoFr</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 20335226</td>
</tr>
<tr>
<td>ICC/IF</td>
<td>★★★★★</td>
<td>1/50 - 1/100.</td>
</tr>
</tbody>
</table>
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.

**Application**
<table>
<thead>
<tr>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-P</td>
<td>1/50 - 1/100. Prolonged fixation in buffered formalin can destroy the epitope.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td>1/50 - 1/100.</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>Use at an assay dependent concentration. PubMed: 21829502</td>
</tr>
</tbody>
</table>

**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**
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**Images**
**Immunohistochemistry (Frozen sections) - Anti-Insulin antibody (ab7842)**

This image is courtesy of an anonymous Abreview.

ab7842 staining Insulin in human kidney tissue by Immunohistochemistry (Frozen sections). Tissue was fixed in formaldehyde, permeabilized with methanol, blocked using 3% BSA for 1 hour at 22°C then incubated with ab7842 at a 1/200 dilution for 18 hours at 4°C. The secondary used was an Aleza-Fluor 568 conjugated goat anti-guinea pig polyclonal used at a 1/500 dilution.

Image shows kidney section bearing RGD-Adv-hHGF-hXIAP-transduced human islets at 30 days after islet transplantation. (a-b) Insulin was stained in red to indicate the functional human islets of mice receiving untransduced human islets (a) and RGD-Adv-hHGF-hXIAP-transduced human islets (b).

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Insulin antibody (ab7842)**

The picture shows beta cells in the pancreas using ab7842 (primary) and Goat Anti-Guinea pig IgG H&L (Texas Red ®) (ab6906) (secondary). The beta cells in the islets show up very bright red with almost no background.

This image was kindly supplied as part of the review submitted by Kristi Hultman.
**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Insulin antibody (ab7842)**

This image is courtesy of an Abreview submitted by Dr Ulrich Schweizer

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Insulin antibody (ab7842)**

This image is courtesy of an Abreview submitted by Dr Laura Alonso

**Flow Cytometry - Anti-Insulin antibody (ab7842)**


ab7842 at 1/1000 dilution staining rat pancreas tissue sections by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). The sections were fixed with paraformaldehyde and blocked with 5% serum prior to incubation with the antibody for 12 hours. A Cy2 conjugated goat polyclonal antibody was used as the secondary. Insulin staining is shown in green. Somatostatin staining is shown in red. DAPI was used as nuclear counterstain.

ab7842 at 1/200 staining mouse pancreas tissue sections by IHC-P.

The tissue section was prepared by Bouin's fixation followed by 1N HCl antigen retrieval and blocked with 1% BSA, 5% goat serum for 4 hours at 20°C.

The primary antibody was incubated for 16 hours at 4°C.

The secondary antibody was a fluorophore labelled Goat anti-Guinea pig polyclonal diluted 1/200.

Flow cytometry analysis of a single cell suspension from isolated Human fetal islets, staining Insulin with ab7842.
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