Product datasheet

Anti-GLP1 antibody ab22625

7 Abreviews  15 References  2 Images

Overview

Product name: Anti-GLP1 antibody
Description: Rabbit polyclonal to GLP1
Host species: Rabbit
Tested applications: Suitable for: IHC-Fr, IHC-P, IHC-R, ICC/IF
Species reactivity: Reacts with: Mouse, Rat, Human
Predicted to work with: Mammals

Immunogen: Synthetic peptide corresponding to Human GLP1 aa 1-19 conjugated to Bovine Serum Albumin (BSA) (Bis-diazotised toolidine (Bdt)). The mid to C terminal region of GLP 1 [1-19] enabling immunoreactivity with N terminal truncated and C terminally extended forms of GLP 1 (e.g. GLP 1[7 to 36]amide).
Sequence: HDEFERHAEGTFTSDVSSY

Positive control: Mammalian endocrine pancreas (A cells) and colon (L/EG cells) are heavily labelled with this antiserum.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer: Constituent: Whole serum
Purity: Ammonium Sulphate Precipitation
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab22625 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>Abviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-Fr</td>
<td>★★★☆☆</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>★★★☆☆</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>IHC-R</td>
<td></td>
<td>Use at an assay dependent concentration. Vibratome slices, All standard crosslinking agents may be used. 1/500 to 1/4000, using overnight incubation and peroxidase anti peroxidase procedure. 1/100 to 1/1000, using overnight incubation and indirect immunofluorescence procedure.</td>
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<tr>
<td>ICC/IF</td>
<td>★★★★★</td>
<td>Use at an assay dependent concentration. Used at a dilution of 1/500 for 2 hrs using mouse small intestinal cells (see Abreview for further details).</td>
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</tbody>
</table>

**Target**

**Function**

Glucagon plays a key role in glucose metabolism and homeostasis. Regulates blood glucose by increasing gluconeogenesis and decreasing glycolysis. A counterregulatory hormone of insulin, raises plasma glucose levels in response to insulin-induced hypoglycemia. Plays an important role in initiating and maintaining hyperglycemic conditions in diabetes.

GLP-1 is a potent stimulator of glucose-dependent insulin release. Play important roles on gastric motility and the suppression of plasma glucagon levels. May be involved in the suppression of satiety and stimulation of glucose disposal in peripheral tissues, independent of the actions of insulin. Have growth-promoting activities on intestinal epithelium. May also regulate the hypothalamic pituitary axis (HPA) via effects on LH, TSH, CRH, oxytocin, and vasopressin secretion. Increases islet mass through stimulation of islet neogenesis and pancreatic beta cell proliferation. Inhibits beta cell apoptosis.

GLP-2 stimulates intestinal growth and up-regulates villus height in the small intestine, concomitant with increased crypt cell proliferation and decreased enterocyte apoptosis. The gastrointestinal tract, from the stomach to the colon is the principal target for GLP-2 action. Plays a key role in nutrient homeostasis, enhancing nutrient assimilation through enhanced gastrointestinal function, as well as increasing nutrient disposal. Stimulates intestinal glucose transport and decreases mucosal permeability.

Oxyntomodulin significantly reduces food intake. Inhibits gastric emptying in humans. Suppression of gastric emptying may lead to increased gastric distension, which may contribute to satiety by causing a sensation of fullness.

Glicentin may modulate gastric acid secretion and the gastro-pyloro-duodenal activity. May play an important role in intestinal mucosal growth in the early period of life.

**Tissue specificity**

Glucagon is secreted in the A cells of the islets of Langerhans. GLP-1, GLP-2, oxyntomodulin and glicentin are secreted from enteroendocrine cells throughout the gastrointestinal tract. GLP1 and GLP2 are also secreted in selected neurons in the brain.

**Sequence similarities**

Belongs to the glucagon family.

**Post-translational modifications**

Proglucagon is post-translationally processed in a tissue-specific manner in pancreatic A cells and intestinal L cells. In pancreatic A cells, the major bioactive hormone is glucagon cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1 liberates GLP-1, GLP-2, glicentin and oxyntomodulin. GLP-1 is further N-terminally truncated by post-translational processing in the intestinal L cells resulting in GLP-1(7-37) GLP-1-(7-36)amide. The C-terminal amidation is neither important for the metabolism of GLP-1 nor for its effects on the endocrine pancreas.

**Cellular localization**

Secreted.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GLP1 antibody (ab22625)

ab22625 (1/2000) staining GLP1 in human pancreas using an automated system (DAKO Autostainer Plus). Using this protocol there is strong cytoplasmic staining in the pancreatic islets. 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-GLP1 antibody (ab22625)

ab22625 at a 1/500 dilution staining mouse small intestine (pancreas) by ICC/IF. The cells were paraformaldehyde fixed and blocked with 5% serum prior to incubation with the antibody for 2 hours. Bound antibody was detected using a Cy2 conjugated donkey anti-rabbit IgG (H+L). As expected, the small intestine staining is in a very low number of entero-endocrine cells (L-cells), laying on the intestinal villi. This image is courtesy of an Abreview.

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