




## Product datasheet

### Anti-GLP-1 antibody [5B10] ab191894

4 Images

#### Overview

<b>Product name</b>	Anti-GLP-1 antibody [5B10]
<b>Description</b>	Mouse monoclonal [5B10] to GLP-1
<b>Host species</b>	Mouse
<b>Specificity</b>	ab191894 reacts with all forms of GLP1 , including precursor and GLP1 (9-37) / GLP1 (9-36amide) metabolite. ab191894 cross-reacts with Liraglutide, a GLP1 agonist.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Guinea pig, Hamster, Cow, Dog, Pig 
<b>Immunogen</b>	Synthetic peptide corresponding to Human GLP-1 aa 1-100 (internal sequence). Coupled to a carrier. Database link: <a href="#">P01275</a>  <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a>
<b>Epitope</b>	Mid-molecular epitope of GLP1
<b>General notes</b>	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.  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

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.09% Sodium azide Constituents: 2.9% Sodium chloride, 97% PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

<b>Clone number</b>	5B10
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab191894 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		1/3200 - 1/4000.

## 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.

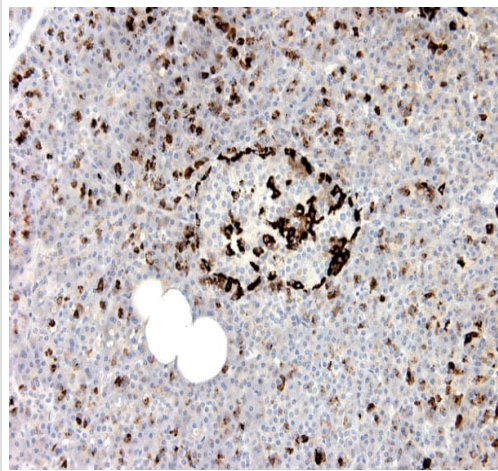
### Sequence similarities

Belongs to the glucagon family.

### Post-translational modifications

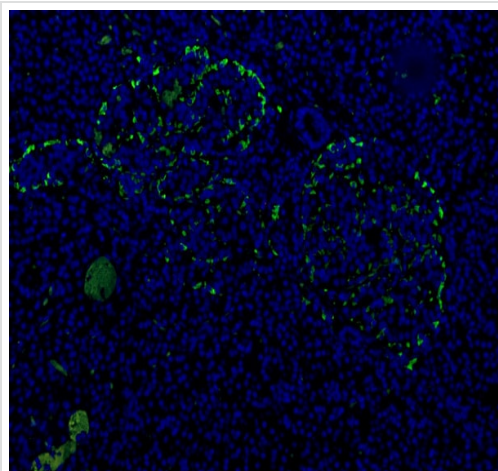
Proglucagon is post-translationally processed in a tissue-specific manner in pancreatic A cells and intestinal L cells. In pancreatic A cells, the major bioactive hormone is glucagon cleaved by PCSK2/PC2. In the intestinal L cells PCSK1/PC1 liberates GLP-1, GLP-2, glicentin and oxyntomodulin. GLP-1 is 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.

## Images



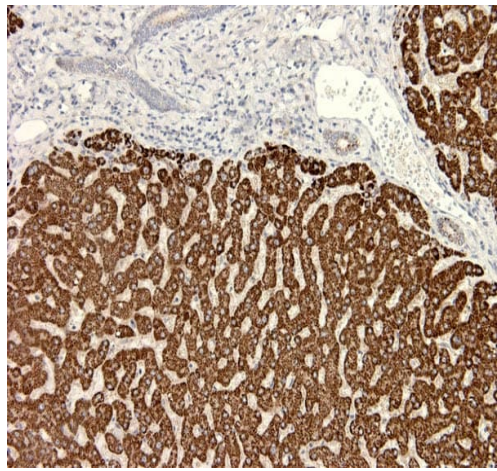
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GLP-1 antibody [5B10] (ab191894)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human pancreas tissue labelling GLP-1 with ab191894 at a dilution of 1/3200. Alpha cells of the Langerhans islet and scattered cells in the exocrine area of the pancreas were stained strongly.



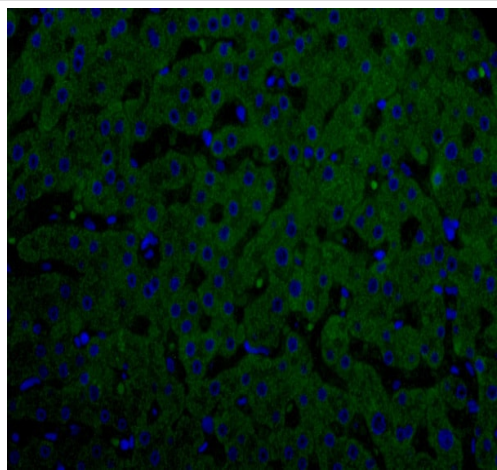
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GLP-1 antibody [5B10] (ab191894)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human pancreas tissue labelling GLP-1 with ab191894 at a dilution of 1/4000. Signal is strong in alpha cells.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GLP-1 antibody [5B10] (ab191894)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue labelling GLP-1 with ab191894 at a dilution of 1/3200. Hepatocytes were stained strongly.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GLP-1 antibody [5B10] (ab191894)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue labelling GLP-1 with ab191894 at a dilution of 1/4000. Signal is strong in the cytoplasm of hepatocytes.

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