




Product datasheet

Anti-GLP-1 antibody [11E2] ab23468

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Overview

Product name	Anti-GLP-1 antibody [11E2]
Description	Mouse monoclonal [11E2] to GLP-1
Host species	Mouse
Specificity	This antibody reacts with all forms of GLP-1, including precursor.
Tested applications	Suitable for: ELISA, Sandwich ELISA, ICC/IF
Species reactivity	Reacts with: Rat Predicted to work with: Guinea pig, Cow 
Immunogen	Synthetic peptide corresponding to Human GLP-1 aa 50-150. The immunogen sequence corresponds to Glucagon-like peptide 1(7-36), one of the chains formed when cleaved. Immunogen was coupled to a carrier and adsorbed onto aluminum hydroxide gel. Database link: P01275  Run BLAST with  Run BLAST with
Epitope	This antibody reacts with a mid-molecular epitope of GLP 1 (Glucagon-like peptide 1(7-36)).
Positive control	ICC/IF: PC12 cells.
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). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituents: 0.0268% PBS, 2.9% Sodium chloride
Purification notes	Protein A/G purified

Clonality	Monoclonal
Clone number	11E2
Myeloma	x63-Ag8.653
Isotype	IgG2a
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab23468 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
ELISA		Use at an assay dependent concentration.
Sandwich ELISA		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

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

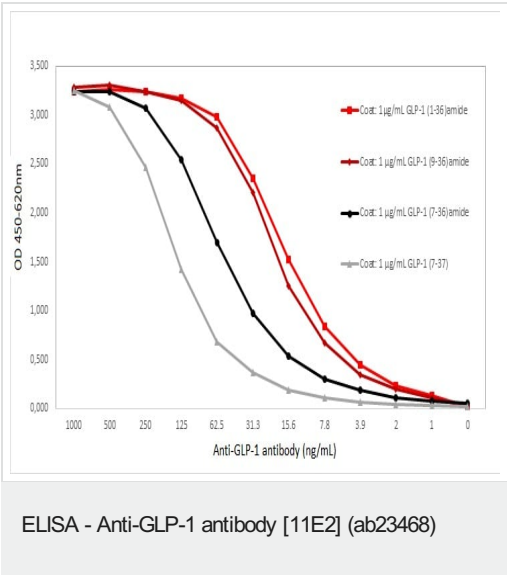
Glucagon is secreted in the A cells of the islets of Langerhans. GLP-1, GLP-2, oxyntomodulin and glicentin are secreted from enteroendocrine cells throughout the gastrointestinal tract. GLP1 and GLP2 are also secreted in selected neurons in the brain.

Sequence similarities

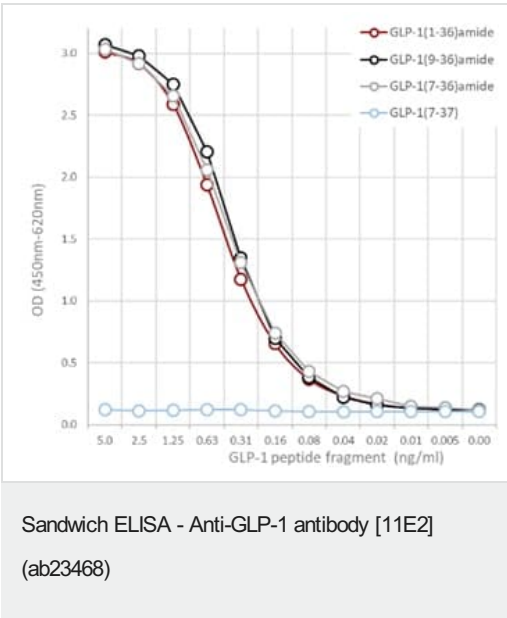
Belongs to the glucagon family.

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.

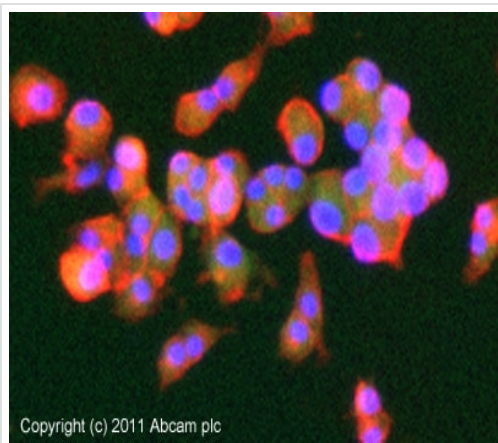
Images



ELISA graph displaying different concentrations of ab23468 used to detect 1 µg/mL of the GLP-1 (GLP-1 (1-36)amide, GLP-1 (9-36)amide, GLP-1 (7-36)amide, and GLP-1 (7-37)) coated directly in the well.



Sandwich ELISA graph showing GLP-1 (1-36)amide, GLP-1 (9-36)amide, and GLP-1 (7-36)amide detection using **ab26278** as catching antibody and biotinylated ab23468 detection antibody.



Immunocytochemistry/ Immunofluorescence - Anti-GLP-1 antibody [11E2] (ab23468)

ICC/IF image of ab23468 stained PC12 cells. The cells were 4% formaldehyde (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab23468, 10µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96879** Dylight 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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