

Datasheet for ABIN7448121
anti-Glucagon antibody



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1 Validation

4 Images

Overview

Quantity:	100 µg
Target:	Glucagon (GCG)
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Glucagon antibody is un-conjugated
Application:	ELISA, Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	Glucagon antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal portion of human Glucagon.
Isotype:	IgG
Specificity:	This affinity purified antibody is directed against human Glucagon.
Cross-Reactivity (Details):	A BLAST analysis was used to suggest cross-reactivity with the antigen based on 100% homology with the immunizing sequence to human, chimpanzee, and bonobo.
Purification:	This product was affinity purified from monospecific antiserum by immunoaffinity purification.
Sterility:	Sterile filtered

Target Details

Target:	Glucagon (GCG)
Alternative Name:	GCG (GCG Products)
Background:	<p>Glucagon is a member of a multigene family that includes secretin. Glucagon is a 29-amino acid pancreatic hormone that counteracts the glucose-lowering action of insulin by stimulating glycogenolysis and gluconeogenesis. The human glucagon gene is approximately 9.4 kb long, contains 6 exons and 5 introns, and assigned to 2q36-2q37. This antibody is suitable for researchers interested in metabolic diseases, like diabetes, cell proliferation, differentiation, apoptosis, GCPR signaling, and calcium signaling research.</p> <p>Synonyms: Glucagon, Pro-glucagon, Glicentin, Glicentin-related polypeptide, GRPP, Oxyntomodulin, OXM, OXY, Glucagon, Glucagon-like peptide 1, GLP-1, Incretin hormone, GLP1, Preproglucagon, Glucagon-Like Peptide 2, GLP2</p>
Molecular Weight:	20.9 kD
Gene ID:	2641
NCBI Accession:	NP_002045.1
UniProt:	P01275
Pathways:	Positive Regulation of Peptide Hormone Secretion , Peptide Hormone Metabolism , cAMP Metabolic Process , Regulation of Carbohydrate Metabolic Process , Feeding Behaviour , Negative Regulation of intrinsic apoptotic Signaling

Application Details

Application Notes:	Anti-Glucagon is tested in ELISA and Western Blotting. Although not tested, this antibody is suitable for immunohistochemistry. Expect a band approximately ~20.9 kDa corresponding to the appropriate cell lysate or extract. Specific conditions for reactivity should be optimized by the end user.
Comment:	ELISA Dilution: 1:24,800-1:44,800
Restrictions:	For Research Use only

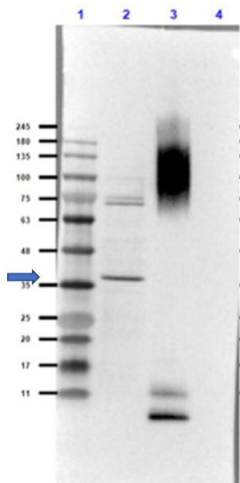
Handling

Format:	Liquid
Concentration:	1.18 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide

Handling

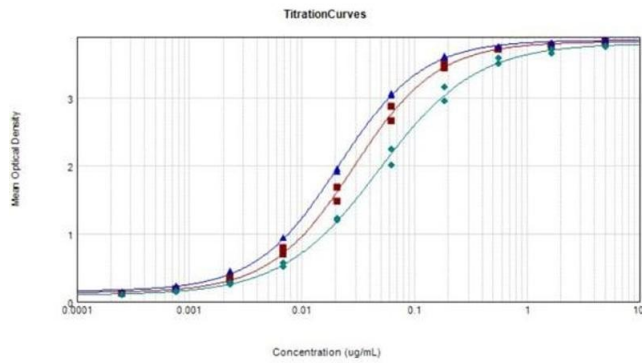
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Images



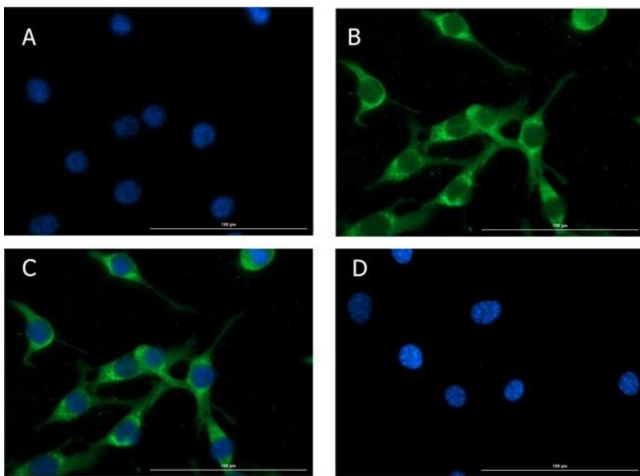
Western Blotting

Image 1. Western Blot of Rabbit Anti-Glucagon Antibody. Lane 1: Opal Prestained Molecular Weight. Lane 2: COS-7 Lysate - reduced (20µg). Lane 3: BSA Conjugated Glucagon peptide - reduced (0.02µg). Lane 4: Insulin - reduced (0.05µg). Primary Antibody: Anti-Glucagon [Rabbit] Antibody at 1.0µg/mL overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG Peroxidase conjugated at 1:70,000 for 30mins at RT. Block: Blocking Buffer for Fluorescent Western Blotting (ABIN925618) for 1hr at RT. Expected MW: ~21kDa. Observed MW: endogenous detection in COS-7 Lysate at ~35kDa. Glucagon peptide is detected at the MW of BSA. No cross-reactivity with insulin is observed. Exposure: 25 sec.



ELISA

Image 2. ELISA Results of Rabbit Anti-Glucagon Antibody. Each well was coated with 1 µg of conjugate. The starting concentration of antibody in the dilution series was 5 µg/ml. The titer is 1:34,800 Glucagon - Free peptide [Red Line], 1:47200 Glucagon Standard - BSA conjugated [Blue Line], and 1:20,500 Glucagon - BSA conjugated [Green Line]. Each point on the Y-axis represents a 3-fold dilution. 3% Fish Gel (ABIN925588), HRP conjugated Goat anti-Rabbit IgG (H&L) (ABIN101990), and TMB substrate were used for detection.



Immunofluorescence

Image 3. Immunofluorescence of Rabbit Anti-Glucagon Antibody. Cell Line: NIH/3T3 cells. Fixative: 100% Methanol. Permeabilization: Triton X-100. Primary Antibody: Anti-Glucagon at 15 µg/mL overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG DyLight™488 (ABIN6699099) at 5 µL/mL for 1 hr at RT. Nuclear Counterstain: DAPI. Staining: (A). DAPI. (B). Anti-Glucagon + DyLight™488 secondary. (C). Merge A+B. (D). secondary only. Localization expected: Cytoplasm.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN7448121.



Successfully validated (Immunohistochemistry (IHC))

by [Prof. Merighi, Laboratory of Neurobiology, Department of Veterinary Sciences, University of Turin](#)

Report Number: 104519

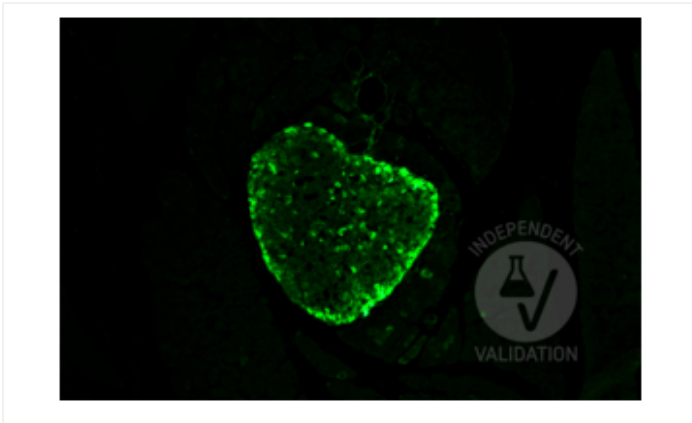
Date: Jan 26 2024

Target:	Glucagon
Lot Number:	49549
Method validated:	Immunohistochemistry (IHC)
Positive Control:	Adult (> 2 months) CD1 mouse pancreas fixed in 4% paraformaldehyde.
Negative Control:	One control slice for each experimental procedure processed omitting the primary antibody; overnight incubation in diluent solution only.
Notes:	Passed. The Glucagon antibody ABIN7448121 works in IHC-P at 1:100 concentrations with microwave antigen retrieval treated sections.
Primary Antibody:	ABIN7448121
Secondary Antibody:	anti-rabbit secondary antibody Alexa Fluor 488 (Thermo Fisher Scientific, A11034, lot # XJ357262)
Protocol:	<ul style="list-style-type: none">• Perfuse mice with paraformaldehyde 4% in 0.1 M phosphate buffer pH 7.4 and post-fix of samples in the same fixative for an additional 2 h at RT.• Wash, dehydrate, and embed samples in paraffin wax.• Wash several times with 0.01 M PBS.• Cut brain with a microtome into 6 µm sections and mount on glass slides.• After paraffin removal processed sections for microwave antigen retrieval for 10 minutes (95-100° C) in 10 mM sodium citrate buffer (pH 6.0). After 20 minutes of spontaneous cooling, wash sections (distilled water, 2 times for 5 minutes each; followed by PBS for 5 minutes).• Incubate sections for 1 h at RT in a humid chamber in PBS containing 1% ovalbumin (Sigma, A5378) and 0.3% Triton-X-100 (BioRad, 161-0407, lot 00583) to block non-specific binding sites.• Incubate sections with primary rabbit anti- Glucagon (antibodies-online, ABIN7448121, lot 49549) diluted 1:50 and 1:100, in PBS-BSA-PLL ON at RT in a humid chamber.• Wash sections 3x 5 min with 0.01 M PBS.• Incubate sections with anti-rabbit secondary antibody Alexa Fluor 488 (Thermo Fisher Scientific, A11034, lot # XJ357262), 1:500, in 0.1M PBS, 1 hour at room temperature.• Wash sections 3x 5 min in 0.01 M PBS.

Validation report #104519 for Immunohistochemistry (IHC)

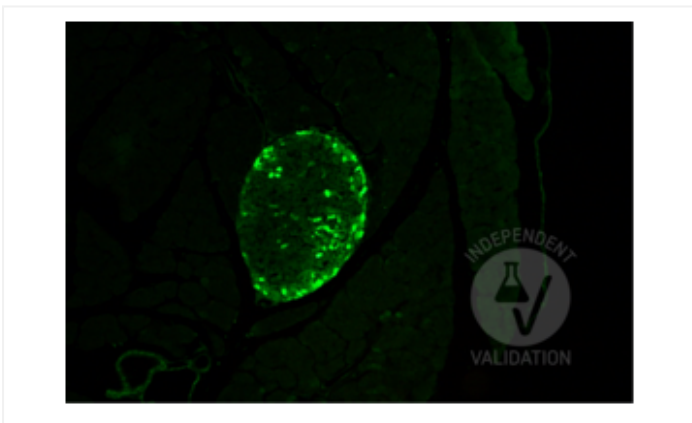
- Mount specimens in Fluoroshield (Sigma, F6182, lot MKCB0153V).
- Acquire images Leica DM 6000B fluorescence microscope equipped with a digital camera at 40x magnification.

Images for Validation report #104519



Validation image no. 1 for anti-Glucagon (GCG) antibody (ABIN7448121)

Staining with ABIN7448121 of glucagon immunostained α cells in the CD1 mouse pancreatic islets. Original magnification 20x.



Validation image no. 2 for anti-Glucagon (GCG) antibody (ABIN7448121)

Staining with ABIN7448121 of glucagon immunostained α cells in the CD1 mouse pancreatic islets. Original magnification 20x.