

# Glucagon Recombinant Polyclonal Antibody (3HCLC)

Catalog Number 710316

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Human, Non-human primate
Host/Isotope	Rabbit / IgG	Tested Applications	Dilution *
Class	Recombinant Polyclonal		
Type	Antibody	Western Blot (WB)	2-3 µg/mL
Clone	3HCLC	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Immunogen	Peptide corresponding to amino acids 53-81 of human Glucagon		
Conjugate	Unconjugated		
Form	Liquid		
Concentration	0.5 mg/mL		
Purification	Protein A		
Storage buffer	PBS		
Contains	0.09% sodium azide		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

## Product specific information

This antibody is predicted to react with mouse, rat, rabbit and porcine based on sequence homology. Recombinant rabbit polyclonal antibodies are unique offerings from Thermo Fisher Scientific. They are comprised of a selection of multiple different recombinant monoclonal antibodies, providing the best of both worlds - the sensitivity of polyclonal antibodies with the specificity of monoclonal antibodies - all delivered with the consistency only found in a recombinant antibody. While functionally the same as a polyclonal antibody - recognizing multiple epitope sites on the target and producing higher detection sensitivity for low abundance targets - a recombinant rabbit polyclonal antibody has a known mixture of light and heavy chains. The exact population can be produced in every lot, circumventing the biological variability typically associated with polyclonal antibody production.

## Background/Target Information

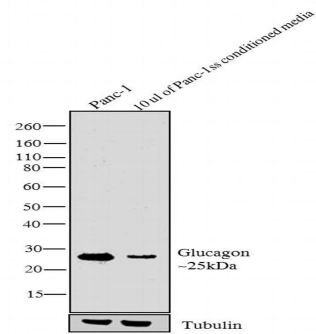
Glucagon is a 29-residue polypeptide hormone (MW 3482), produced in the pancreas. A related hormone, enteroglucagon (or oxyntomodulin), which is produced in the mucosa of the small and large intestine, consists of the 29 amino acid sequence of pancreatic glucagon extended by 8 additional residues at the C-terminus. The biological activities of pancreatic glucagon include glycogenolysis, lipolysis, gluconeogenesis, and ketogenesis, which are antagonistic effects to those of insulin action, thus leading to increased blood glucose levels. Immunocytochemical studies have revealed the presence of pancreatic glucagon inside the A or alpha cells, which constitute 15-20% of the islet cell population. These cells are located preferentially at the periphery of the human pancreatic islets. Pathological manifestations of the glucagon-type peptide residue almost exclusively with the existence of tumors or glucagonomas, as no states of glucagon-cell deficiency or hyperplasia have been identified. Glucagon-specific antibodies would prove useful as a cell and tumor markers applying immunohistochemical techniques, and as an analytical tool in qualification of the hormone.

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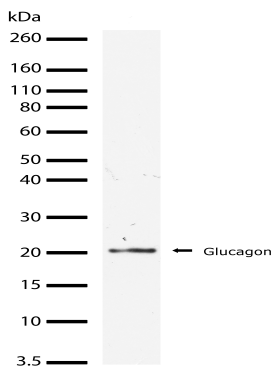
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**Glucagon Antibody (710316) in WB**

Western blot analysis was performed on whole cell extracts (30 µg lysate) of Panc-1 (Lane 1) and 10 µL of Panc-1 serum starved (ss) conditioned media (serum starved for overnight) (Lane 2). The blots were probed with Glucagon Recombinant Rabbit Polyclonal Antibody (Product # 710316, 2 µg/mL) and detected by chemiluminescence using Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, HRP conjugate (Product # A27036, 0.4 µg/mL, 1:2500 dilution). A 25 kDa band corresponding to Glucagon was observed across the cell line tested. Known quantity of protein samples were electrophoresed using Novex® NuPAGE® ; 4-12% Bis-Tris gel (Product # NP0322BOX), XCell SureLock™ Electrophoresis System (Product # EI0002) and Novex® Sharp Pre-Stained Protein Standard (Product # LC5800). Resolved proteins were then transferred onto a nitrocellulose membrane with iBlot® 2 Dry Blotting System (Product # IB21001). The membrane was probed with the relevant primary and secondary Antibody following blocking with 5% skimmed milk. Chemiluminescent detection was performed using Pierce™ ECL Western blotting Substrate (Product # 32106).



**Glucagon Antibody (710316) in WB**

Western blot analysis of Glucagon in COS7 whole cell extracts using a Glucagon Recombinant Rabbit Polyclonal Antibody (Product # 710316) at a dilution of 2 µg/mL. Samples were detected using chemiluminescence (ECL). Results show a band at ~21 kDa.

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