ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Glucagon (GLGN) Antibodies

Cat. # GLGN11-P	Human GLGN Control Peptide # 1	**SIZE**: 100 ug
Cat. # GLGN11-A	Rabbit Anti- Human GLGN Ig G # 1 (affinity pure)	**SIZE**: 100 ug

Glucagon is a member of a multigene family comprising of Secretin, Vasoactive Intestinal Peptide (VIP), Gastric Inhibitory Peptide (GIP) and others like Glicentin and Oxyntomodulin (OXM), which differs from glucagon by C-terminal octapeptide. The glucagon precursor contains at least 3 intervening sequences that divide the protein-coding portion into 4 regions corresponding to the signal peptide and part of the N-terminal peptide, the remainder of the N-terminal peptide and glucagon, glucagon-like peptide-1 (GLP1), and GLP2. The GLP 1 & 2 stimulates intestinal growth and up regulates villus height in the small intestine, concomitant with increased crupt cell proliferation and decreased enterocyte apoptosis. The two GLP's are mainly produced in the A cells of the Islets of Langerhans in response to a drop in blood sugar concentration.

Glucagon (GLGN) is a 29aa pancreatic hormone (chr 2q36), which together with insulin, is an important regulator of glucose metabolism. When in need of glucose, glucagon is secreted by the A cells of the pancreas and binds to target cell-surface receptors in the liver. The glucagons in Human, rabbit, rat, pig and cow are identical.

Source of Antigen and Antibodies

Antigen	8aa peptide of Human GLGN ; **Designated (GLGN11-P, control or blocking peptide) conjugated to KLH;** epitope location – mid region
Ab Host/type	Rabbit, polyclonal Aff pure IgG (**cat #GLGN11-A**) purified over antigen-agarose column
2-ab	Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique). An antibody made to the ERAB11 epitope has detected ~ 27 kDa protein in the brain.

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry & Immunofluorescence. We recommend the use of affinity purified antibody at 10-30 ug/ml in formaldehyde fixed, paraffin-embedded tissues (1).

Specificity & Cross-reactivity

The hGLGN11-P control peptide shows 100% sequence homology with rat, rabbit, bovine, sheep, mouse, and pig glucagon precursor. Actual cross-reactivity of antibodies in various species has not been studied. The control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity. (see detailed protocol at the web site).

General References:

Thomsen J et al (1972) FEBS Lett. 21, 315-319; Drucker , D J et al (1988) JBC 263(27), 13475-478; Tsugita, A et al (1992) Eur J of biochemistry/ FEBS 206(31), 691-696.

*This product is for In vitro research use only.

Related material available from ADI

Antibodies for Glucagon, GLP1 &2, GIP, Secretin, OXM and GRF.

GLGN11-A-P 71213J

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