# Glucagon (1-180): sc-4338 WB



The Power to Questio

## **BACKGROUND**

Glucagon is a pancreatic hormone that functions as an antagonist to insulin, stimulating the conversion of glycogen to glucose and increasing blood sugar levels. Glucagon-like peptide-1 (GLP-1), Glucagon-like peptide-2 (GLP-2), VIP (vasoactive intestinal peptide) and PACAP (pituitary adenylate cyclase activating polypeptide) are members of the glucagon family of hormones. GLP-1 functions as a transmitter in the central nervous system, inhibiting feeding and drinking behavior, whereas GLP-2 is a stimulator of intestinal epithelial growth. VIP causes vasodilation resulting in the lowering of blood pressure. PACAP is abundant in the hypothalamus and has been shown to increase the synthesis of several hormones, including growth hormone.

# **REFERENCES**

- 1. Rouille, Y., Martin, S., and Steiner, D.F. 1995. Differential processing of proglucagon by the subtilisin-like prohormone convertases PC2 and PC3 to generate either glucagon or glucagon-like peptide. J. Biol. Chem. 270: 26488-26496.
- 3. Scrocchi, L.A., Brown, T.J., MaClusky, N., Brubaker, P.L., Auerbach, A.B., Joyner, A.L., and Drucker, D.J. 1996. Glucose intolerance but normal satiety in mice with a null mutation in the Glucagon-like peptide-1 receptor gene. Nat. Med. 2: 1254-1258.
- Moens, K., Heimberg, H., Flamez, D., Huypens, P., Quartier, E., Ling, Z., Pipeleers, D., Gremlich, S., Thorens, B., and Schuit, F. 1996. Expression and functional activity of Glucagon, Glucagon-like peptide-I, and glucosedependent insulinotropic peptide receptors in rat pancreatic islet cells. Diabetes 45: 257-261.
- Jiang, S., Kopras, E., McMichael, M., Bell, R.H. Jr., Ulrich, C.D. 2nd. 1997. Vasoactive intestinal peptide (VIP) stimulates *in vitro* growth of VIP-1 receptor-bearing human pancreatic adenocarcinoma-derived cells. Cancer Res. 57: 1475-1480.
- Bollen, M., Keppens, S., and Stalmans, W. 1998. Specific features of glycogen metabolism in the liver. Biochem. J. 336: 19-31.
- 6. Martinez-Fuentas, A.J., Castano, J.P., Gracia-Navarro, F., and Malagon, M.M. 1998. Pituitary adenylate cyclase-activating polypeptide (PACAP) 38 and PACAP27 activate common and distinct intracellular signaling pathways to stimulate growth hormone secretion from porcine somatotropes. Endocrinology 139: 5116-5124.
- 7. Franklin, I., Gromada, J., Gjinovci, A., Theander, S., Wollheim, C.B. 2005.  $\beta$ -cell secretory products activate  $\alpha$ -cell ATP-dependent potassium channels to inhibit glucagon release. Diabetes 54: 1808-1815.

# SOURCE

Glucagon (1-180) is expressed in *E. coli* as a 47 kDa tagged fusion protein corresponding to amino acids 1-180 of Glucagon of human origin.

## **PRODUCT**

Glucagon (1-180) is purified from bacterial lysates (>98%) by column chromotography; supplied as 10  $\mu$ g in 0.1 ml SDS-PAGE loading buffer.

#### **APPLICATIONS**

Glucagon (1-180) is suitable as a Western blotting control for sc-7779, sc-7780 and sc-13091.

### **STORAGE**

Store at -20° C; stable for one year from the date of shipment.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com