SANTA CRUZ BIOTECHNOLOGY, INC.

GLP-1 (8G9): sc-80602

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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., et al. 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.
2. Moens, K., et al. 1996. Expression and functional activity of Glucagon, Glucagon-like peptide-1, and glucose-dependent insulinotropic peptide receptors in rat pancreatic islet cells. Diabetes 45: 257-261.
3. Scrocchi, L.A., et al. 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.
4. Jiang, S., et al. 1997. Vasoactive intestinal peptide (VIP) stimulates *in vitro* growth of VIP1 receptor-bearing human pancreatic adenocarcinoma-derived cells. Cancer Res. 57: 1475-1480.
5. Bollen, M., et al. 1998. Specific features of glycogen metabolism in the liver. Biochem. J. 336: 19-31.
6. Martinez-Fuentas, A.J., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: GCG (human) mapping to 2q24.2; Gcg (mouse) mapping to 2 C1.3.

SOURCE

GLP-1 (8G9) is a mouse monoclonal antibody raised against GLP-1.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

GLP-1 (8G9) is recommended for detection of GLP-1 of mouse, rat, human and bovine origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Proglucagon siRNA (h): sc-39528, Proglucagon siRNA (m): sc-39529, Proglucagon shRNA Plasmid (h): sc-39528-SH, Proglucagon shRNA Plasmid (m): sc-39529-SH, Proglucagon shRNA (h) Lentiviral Particles: sc-39528-V and Proglucagon shRNA (m) Lentiviral Particles: sc-39529-V.

Molecular Weight of GLP-1: 4 kDa.

Molecular Weight of GLP-1 precursor: 19 kDa.

SELECT PRODUCT CITATIONS

1. Canzonieri, V., et al. 2012. Exocrine and endocrine modulation in common gastric carcinoma. Am. J. Clin. Pathol. 137: 712-721.
2. Anbazhagan, A.N., et al. 2016. A novel anti-inflammatory role of GPR120 in intestinal epithelial cells. Am. J. Clin. Pathol. 310: C612-C621.
3. Graus-Nunes, F., et al. 2017. Differential effects of angiotensin receptor blockers on pancreatic islet remodelling and glucose homeostasis in diet-induced obese mice. Mol. Cell. Endocrinol. 439: 54-64.
4. da Rosa-Santos, C.A., et al. 2020. Early protein restriction increases intra-islet GLP-1 production and pancreatic β-cell proliferation mediated by the β-catenin pathway. Eur. J. Nutr. E-published.
5. Pereira de Arruda, E.H., et al. 2020. Protein restriction during pregnancy impairs intra-islet GLP-1 and the expansion of β-cell mass. Mol. Cell. Endocrinol. E-published.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.