

GLP-1 (4F3): sc-80604

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

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4. Jiang, S., Kopras, E., McMichael, M., Bell, R.H., Jr. and Ulrich, C.D., 2nd. 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., Keppens, S. and Stalmans, W. 1998. Specific features of glycogen metabolism in the liver. *Biochem. J.* 336: 19-31.
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CHROMOSOMAL LOCATION

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

SOURCE

GLP-1 (4F3) is a mouse monoclonal antibody raised against amino acids 7-36 of GLP-1.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GLP-1 (4F3) is recommended for detection of all forms of GLP-1, including the precursor of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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.

Positive Controls: 3T3-L1 cell lysate: sc-2243, A-431 whole cell lysate: sc-2201 or MIA PaCa-2 cell lysate: sc-2285.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

SELECT PRODUCT CITATIONS

1. Pena, M.J., Guerreiro, S.G., Rocha, J.C., Morais, T., Pereira, S.S., Monteiro, M.P. and Borges, N. 2019. Acute effect of an amino acid mixture in the rat glycemic profile. *J. Cell. Biochem.* 120: 13056-13065.

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.

PROTOCOLS

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