

GLP-1R (B-11): sc-390773

BACKGROUND

Glucagon, a pancreatic hormone, functions as an antagonist to Insulin, stimulating the conversion of glycogen to glucose and increasing blood sugar levels. GLP-1 functions as a transmitter in the central nervous system, inhibiting feeding and drinking behavior. Both Glucagon and GLP-1 function through their specific binding to the Glucagon receptor or GLP-1R, respectively. The Glucagon receptor shows expression in liver, kidney and adipose tissue. GLP-1R expression primarily localizes to areas of the hypothalamus involved in feeding behavior. Both receptors and their ligands serve as potential targets for the therapeutic treatment of diabetes.

CHROMOSOMAL LOCATION

Genetic locus: GLP1R (human) mapping to 6p21.2; Glp1r (mouse) mapping to 17 A3.3.

SOURCE

GLP-1R (B-11) is a mouse monoclonal antibody raised against amino acids 91-145 mapping within an N-terminal extracellular domain of GLP-1R of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GLP-1R (B-11) is available conjugated to agarose (sc-390773 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390773 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390773 PE), fluorescein (sc-390773 FITC), Alexa Fluor® 488 (sc-390773 AF488), Alexa Fluor® 546 (sc-390773 AF546), Alexa Fluor® 594 (sc-390773 AF594) or Alexa Fluor® 647 (sc-390773 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390773 AF680) or Alexa Fluor® 790 (sc-390773 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

GLP-1R (B-11) is recommended for detection of GLP-1R of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GLP-1R siRNA (h): sc-45760, GLP-1R siRNA (m): sc-45764, GLP-1R siRNA (r): sc-270026, GLP-1R shRNA Plasmid (h): sc-45760-SH, GLP-1R shRNA Plasmid (m): sc-45764-SH, GLP-1R shRNA Plasmid (r): sc-270026-SH, GLP-1R shRNA (h) Lentiviral Particles: sc-45760-V, GLP-1R shRNA (m) Lentiviral Particles: sc-45764-V and GLP-1R shRNA (r) Lentiviral Particles: sc-270026-V.

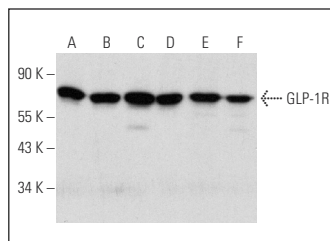
Molecular Weight of GLP-1R: 56 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, SK-N-SH cell lysate: sc-2410 or human liver extract: sc-363766.

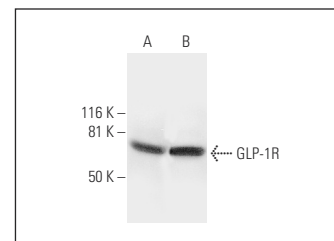
STORAGE

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

DATA



GLP-1R (B-11): sc-390773. Western blot analysis of GLP-1R expression in MIA PaCa-2 (A), SNU-16 (B), WEHI-3 (C), NIH/3T3 (D), RIN-m5F (E) and C6 (F) whole cell lysates.



GLP-1R (B-11): sc-390773. Western blot analysis of GLP-1R expression in SK-N-SH whole cell lysate (A) and human liver tissue extract (B).

SELECT PRODUCT CITATIONS

- Thompson, A. and Kanamarlapudi, V. 2015. Distinct regions in the C-terminus required for GLP-1R cell surface expression, activity and internalisation. *Mol. Cell. Endocrinol.* 413: 66-77.
- Cantini, G., et al. 2019. Glucagon modulates proliferation and differentiation of human adipose precursors. *J. Mol. Endocrinol.* 63: 249-260.
- Sukumaran, V., et al. 2020. Liraglutide treatment improves the coronary microcirculation in Insulin resistant Zucker obese rats on a high salt diet. *Cardiovasc. Diabetol.* 19: 24.
- Li, H., et al. 2020. The protective effects of dulaglutide against advanced glycation end products (AGEs)-induced degradation of type II collagen and aggrecan in human SW1353 chondrocytes. *Chem. Biol. Interact.* 322: 108968.
- Tu, Q., et al. 2021. Up-regulation of GLP-1R improved the dysfunction of late EPCs under hyperglycemia by regulating SIRT1 expression. *Mol. Cell. Endocrinol.* 538: 111455.
- Kong, X., et al. 2021. FXR-mediated epigenetic regulation of GLP-1R expression contributes to enhanced incretin effect in diabetes after RYGB. *J. Cell. Mol. Med.* E-published.
- Jing, X., et al. 2022. Hypothalamic regulation of energy homeostasis when consuming diets of different energy concentrations: comparison between Tibetan and Small-tailed Han sheep. *Br. J. Nutr.* 127: 1132-1142.
- Haueis, L., et al. 2023. Rapid one-step capturing of native, cell-free synthesized and membrane-embedded GLP-1R. *Int. J. Mol. Sci.* 24: 2808.
- Toriuchi, K., et al. 2023. Monocyte-derived miRNA-1914-5p attenuates IL-1β-induced monocyte adhesion and transmigration. *Int. J. Mol. Sci.* 24: 2829.

RESEARCH USE

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