

GLP-1R (D-6): sc-390774

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 (D-6) 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_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GLP-1R (D-6) is available conjugated to agarose (sc-390774 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390774 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390774 PE), fluorescein (sc-390774 FITC), Alexa Fluor® 488 (sc-390774 AF488), Alexa Fluor® 546 (sc-390774 AF546), Alexa Fluor® 594 (sc-390774 AF594) or Alexa Fluor® 647 (sc-390774 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390774 AF680) or Alexa Fluor® 790 (sc-390774 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

GLP-1R (D-6) 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.

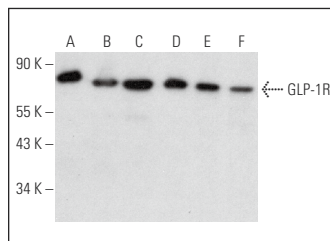
Molecular Weight of GLP-1R: 56 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, SK-N-SH cell lysate: sc-2410 or C6 whole cell lysate: sc-364373.

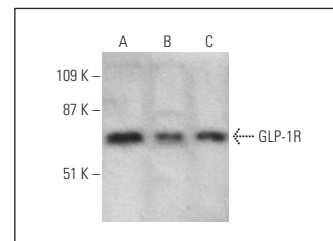
STORAGE

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

DATA



GLP-1R (D-6): sc-390774. Western blot analysis of GLP-1R expression in MIA PaCa-2 (A), SNU-16 (B), WEHI-231 (C), NIH/3T3 (D), RIN-m5F (E) and C6 (F) whole cell lysates.



GLP-1R (D-6) HRP: sc-390774 HRP. Direct western blot analysis of GLP-1R expression in RIN-m5F (A), C6 (B) and SK-N-SH (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Xie, Z., et al. 2018. Exendin-4 attenuates neuronal death via GLP-1R/PI3K/Akt pathway in early brain injury after subarachnoid hemorrhage in rats. *Neuropharmacology* 128: 142-151.
- Liu, Y., et al. 2019. Apelin-13 attenuates early brain injury following subarachnoid hemorrhage via suppressing neuronal apoptosis through the GLP-1R/PI3K/Akt signaling. *Biochem. Biophys. Res. Commun.* 513: 105-111.
- Cui, J., et al. 2020. Chikusetsu saponin IVa protects pancreatic β cell against intermittent high glucose-induced injury by activating Wnt/ β -catenin/TCF7L2 pathway. *Aging* 12: 1591-1609.
- Song, X., et al. 2020. Dimerization/oligomerization of the extracellular domain of the GLP-1 receptor and the negative cooperativity in its ligand binding revealed by the improved NanoBiT. *FASEB J.* 34: 4348-4368.
- Katsurada, K., et al. 2020. GLP-1 mediated diuresis and natriuresis are blunted in heart failure and restored by selective afferent renal denervation. *Cardiovasc. Diabetol.* 19: 57.
- Wu, C.C., et al. 2020. Propofol improved glucose tolerance associated with increased FGF-21 and GLP-1 production in male Sprague-Dawley rats. *Molecules* 25: 3229.
- Yu, M., et al. 2020. Islet transplantation in the subcutaneous space achieves long-term euglycaemia in preclinical models of type 1 diabetes. *Nat. Metab.* 2: 1013-1020.
- Zhang, L., et al. 2020. GLP-1 receptor agonist liraglutide protects cardiomyocytes from IL-1 β -induced metabolic disturbance and mitochondrial dysfunction. *Chem. Biol. Interact.* 332: 109252.
- Guo, C., et al. 2022. MicroRNA-214-5p aggravates sepsis-related acute kidney injury in mice. *Drug Dev. Res.* 83: 339-350.

RESEARCH USE

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