SANTA CRUZ BIOTECHNOLOGY, INC.

GPR119 (D-5): sc-518266

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

G protein-coupled receptors (GPRs) are a protein family of transmembrane receptors that transmit an extracellular signal (ligand binding) into an intracellular signal (G protein activation). GPR signaling is an evolutionarily ancient mechanism used by all eukaryotes to sense environmental stimuli and mediate cell-cell communication. All of the receptors have seven membrane-spanning domains and the extracellular parts of the receptor can be glycosylated. These extracellular loops also contain two highly conserved cysteine residues which create disulfide bonds to stabilize the receptor structure. GPR119 is a 335-amino acid protein that is mainly expressed in the pancreas. It is an endogenous receptor for lysophosphatidylcholine (LPC), which is is a lipid mediator involved in Insulin secretion from pancreatic β-cells. GPR119 may participate in this Insulin secretion, suggesting that it may be potential target for new anti-diabetic drugs.

REFERENCES

1. Two new fluoroquinolones. 1992. Med. Lett. Drugs Ther. 34: 58-60.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300513. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Takeda, S., et al. 2002. Identification of G protein-coupled receptor genes from the human genome sequence. FEBS Lett. 520: 97-101.
4. Fredriksson, R., et al. 2003. Seven evolutionarily lacking close relatives. FEBS Lett. 554: 381-388.
5. Soga, T., et al. 2005. Lysophosphatidylcholine enhances glucose-dependent Insulin secretion via an orphan G protein-coupled receptor. Biochem. Biophys. Res. Commun. 326: 744-751.

CHROMOSOMAL LOCATION

Genetic locus: GPR119 (human) mapping to Xq26.1.

SOURCE

GPR119 (D-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 202-230 of GPR119 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GPR119 (D-5) is available conjugated to agarose (sc-518266 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518266 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518266 PE), fluorescein (sc-518266 FITC), Alexa Fluor® 488 (sc-518266 AF488), Alexa Fluor® 546 (sc-518266 AF546), Alexa Fluor® 594 (sc-518266 AF594) or Alexa Fluor® 647 (sc-518266 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518266 AF680) or Alexa Fluor® 790 (sc-518266 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

GPR119 (D-5) is recommended for detection of GPR119 of 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 GPR119 siRNA (h): sc-60733, GPR119 shRNA Plasmid (h): sc-60733-SH and GPR119 shRNA (h) Lentiviral Particles: sc-60733-V.

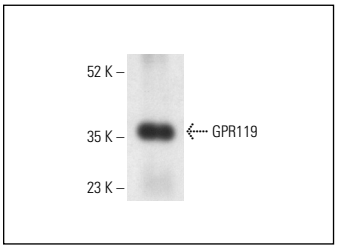
Molecular Weight of GPR119: 37 kDa.

Positive Controls: human ovary extract: sc-363769.

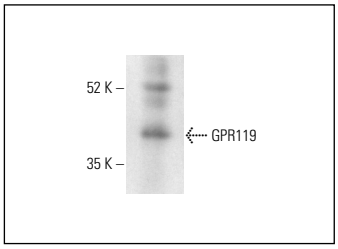
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



GPR119 (D-5): sc-518266. Western blot analysis of human recombinant GPR119 fusion protein. Detection reagent used: m-IgG_1 BP-HRP: sc-525408.



GPR119 (D-5): sc-518266. Western blot analysis of GPR119 expression in human ovary tissue extract. Detection reagent used: m-IgG_1 BP-HRP: sc-525408.

STORAGE

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

PROTOCOLS

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