

GIPR (K-17): sc-69415

BACKGROUND

GIPR (gastric inhibitory polypeptide receptor) is a 466 amino acid protein belonging to the G protein-coupled receptor 2 family. The activity of GIPR is mediated by G proteins, which activate adenylyl cyclase. Expressed as two isoforms produced by alternative splicing, GIPR is a multi-pass cell membrane protein that acts as a receptor for the glucose-dependent Insulinotropic polypeptide (GIP). GIP is a major physiologic factor in the augmentation of the Insulin response to oral glucose. GIP is a peptide hormone that is released postprandially from the small intestine and acts in concert with glucagon-like peptide GLP1 to potentiate glucose-induced Insulin secretion from the pancreatic β cell. GIP has been shown to increase adenylyl cyclase activity, elevate intracellular calcium levels, and stimulate a mitogen-activated protein kinase pathway in the pancreatic β cell. GIP release is demonstrated predominantly after ingestion of carbohydrate and fat and the effects of acid on GIP are consistent with a role for GIP as an enterogastrone.

REFERENCES

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2. Boylan, M.O., et al. 2006. Sp1/Sp3 binding is associated with cell-specific expression of the glucose-dependent Insulinotropic polypeptide receptor gene. *Am. J. Physiol. Endocrinol. Metab.* 290: E1287-E1295.
3. Marenah, L., et al. 2006. A stable analogue of glucose-dependent Insulinotropic polypeptide, GIP(LysPAL16), enhances functional differentiation of mouse embryonic stem cells into cells expressing islet-specific genes and hormones. *Biol. Chem.* 387: 941-947.
4. Lampron, A., et al. 2006. Whole genome expression profiling of glucose-dependent Insulinotropic peptide (GIP)- and adrenocorticotropin-dependent adrenal hyperplasias reveals novel targets for the study of GIP-dependent Cushing's syndrome. *J. Clin. Endocrinol. Metab.* 91: 3611-3618.
5. Tsukiyama, K., et al. 2006. Gastric inhibitory polypeptide as an endogenous factor promoting new bone formation after food ingestion. *Mol. Endocrinol.* 20: 1644-1651.
6. Irwin, N., et al. 2006. Biological activity and antidiabetic potential of synthetic fragment peptides of glucose-dependent Insulinotropic polypeptide, GIP(1-16) and (Pro3)GIP(1-16). *Regul. Pept.* 135: 45-53.

CHROMOSOMAL LOCATION

Genetic locus: GIPR (human) mapping to 19q13.32; Gipr (mouse) mapping to 7 A3.

SOURCE

GIPR (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of GIPR of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69415 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GIPR (K-17) is recommended for detection of GIPR of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GIPR (K-17) is also recommended for detection of GIPR in additional species, including equine, canine, bovine and porcine.

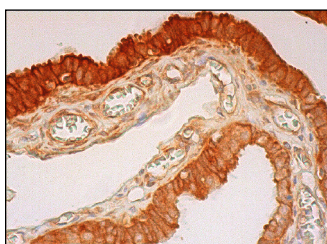
Suitable for use as control antibody for GIPR siRNA (h): sc-75134, GIPR siRNA (m): sc-75135, GIPR shRNA Plasmid (h): sc-75134-SH, GIPR shRNA Plasmid (m): sc-75135-SH, GIPR shRNA (h) Lentiviral Particles: sc-75134-V and GIPR shRNA (m) Lentiviral Particles: sc-75135-V.

Molecular Weight of GIPR: 53 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



GIPR (K-17): sc-69415. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing membrane and cytoplasmic staining of glandular cells.

RESEARCH USE

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