

G_{α gust} (T-17): sc-26890

BACKGROUND

Heterotrimeric G proteins function to relay information from cell surface receptors to intracellular effectors. Each of a very broad range of receptors specifically detects an extracellular stimulus (a photon, pheromone, odorant, hormone or neurotransmitter) while the effectors (e.g. adenylyl cyclase), which act to generate one or more intracellular messengers, are less numerous. In mammals, G protein α , β and γ polypeptides are encoded by at least 16, 4 and 7 genes, respectively. Most interest in G proteins has been focused on their α subunits, since these proteins bind and hydrolyze GTP and most obviously regulate the activity of the best studied effectors. Four distinct classes of G_α subunits have been identified; these include G_s, G_i, G_q and G_{α12/13}. Gustducin has been identified as a taste-cell-specific G protein within the G_i subclass of G_α subunit proteins that is most closely related to the transducins and exclusively expressed in taste buds.

REFERENCES

1. Simon, M.I., Strathmann, M.P. and Gautam, N. 1991. Diversity of G proteins in signal transduction. *Science* 252: 802-808.
2. Cali, J.J., Balcueva, E.A., Rybalkin, I. and Robishaw, J.D. 1992. Selective tissue distribution of G protein γ subunits, including a new form of the γ subunits identified by cDNA cloning. *J. Biol. Chem.* 267: 24023-24027.
3. McLaughlin, S.K., McKinnon, P.J. and Margolskee, R.F. 1992. Gustducin is a taste-cell-specific G protein closely related to the transducins. *Nature* 357: 563-569.
4. von Weizsäcker, E., Strathman, M.P. and Simon, M.I. 1992. Diversity among the β subunits of heterotrimeric GTP-binding proteins: characterization of a novel β -subunit cDNA. *Biochem. Biophys. Res. Comm.* 183: 350-356.
5. Conklin, B.R. and Bourne, H.R. 1993. Structural elements of G_α subunits that interact with G_{βγ} receptors, and effectors. *Cell* 73: 631-641.

CHROMOSOMAL LOCATION

Genetic locus: Gnat3 (mouse) mapping to 5 A3.

SOURCE

G_{α gust} (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of G_{α gust} of rat origin.

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-395 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

G_{α gust} (T-17) is recommended for detection of G_{α gust} of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

G_{α gust} (T-17) is also recommended for detection of G_{α gust} in additional species, including bovine.

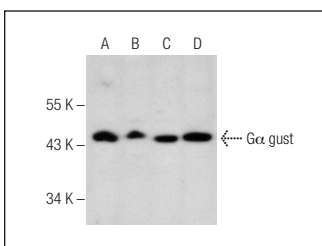
Suitable for use as control antibody for G_{α gust} siRNA (m): sc-41749, G_{α gust} shRNA Plasmid (m): sc-41749-SH and G_{α gust} shRNA (m) Lentiviral Particles: sc-41749-V.

Positive Controls: mouse small intestine extract: sc-364252, EOC 20 whole cell lysate: sc-364187 or CTLL-2 cell lysate: sc-2242.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



G_{α gust} (T-17): sc-26890. Western blot analysis of G_{α gust} expression in EOC 20 (A), CTLL-2 (B) and PMJ2-PC (C) whole cell lysates and mouse small intestine tissue extract (D).

PROTOCOLS

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