

G_α olf (P-15): sc-26763

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. The G_s subfamily of G_α subunits includes two closely related proteins, G_{αs} and G_{αolf}, which, respectively, stimulate adenylyl cyclase and mediate response to olfactory stimuli.

REFERENCES

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8. 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.
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CHROMOSOMAL LOCATION

Genetic locus: GNAL (human) mapping to 18p11.21; Gnal (mouse) mapping to 18 E1.

SOURCE

G_α olf (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of G_α olf 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-26763 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

G_α olf (P-15) is recommended for detection of G_α olf 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

G_α olf (P-15) is also recommended for detection of G_α olf in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for G_α olf siRNA (h): sc-41754, G_α olf siRNA (m): sc-37258, G_α olf shRNA Plasmid (h): sc-41754-SH, G_α olf shRNA Plasmid (m): sc-37258-SH, G_α olf shRNA (h) Lentiviral Particles: sc-41754-V and G_α olf shRNA (m) Lentiviral Particles: sc-37258-V.

Molecular Weight of G_α olf: 45 kDa.

Positive Controls: Y79 cell lysate: sc-2240.

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.

RESEARCH USE

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

PROTOCOLS

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



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Try G_α s/olf (A-5): sc-55545 or G_α s/olf (E-7): sc-55546, our highly recommended monoclonal alternatives to G_α olf (P-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see G_α s/olf (A-5): sc-55545.