

$G_{\alpha \text{ olf}}$ (K-19): sc-385

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, $G_{\alpha s}$ and $G_{\alpha \text{ olf}}$, which, respectively, stimulate adenylyl cyclase and mediate response to olfactory stimuli.

CHROMOSOMAL LOCATION

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

SOURCE

$G_{\alpha \text{ olf}}$ (K-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a highly divergent domain of $G_{\alpha \text{ olf}}$ of rat origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-385 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

$G_{\alpha \text{ olf}}$ (K-19) is recommended for detection of $G_{\alpha \text{ olf}}$ of mammalian origin by Western Blotting (starting dilution 1:200, 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).

$G_{\alpha \text{ olf}}$ (K-19) is also recommended for detection of $G_{\alpha \text{ olf}}$ in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for $G_{\alpha \text{ olf}}$ siRNA (h): sc-41754, $G_{\alpha \text{ olf}}$ siRNA (m): sc-37258, $G_{\alpha \text{ olf}}$ shRNA Plasmid (h): sc-41754-SH, $G_{\alpha \text{ olf}}$ shRNA Plasmid (m): sc-37258-SH, $G_{\alpha \text{ olf}}$ shRNA (h) Lentiviral Particles: sc-41754-V and $G_{\alpha \text{ olf}}$ shRNA (m) Lentiviral Particles: sc-37258-V.

Molecular Weight of $G_{\alpha \text{ olf}}$: 45 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or H19-7/IGF-IR whole cell lysate.

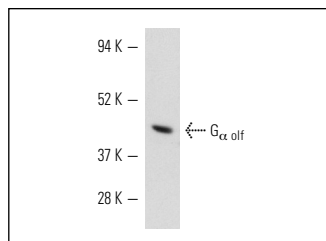
STORAGE

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

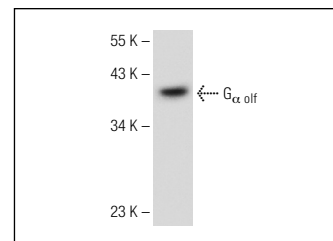
RESEARCH USE

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

DATA



$G_{\alpha \text{ olf}}$ (K-19): sc-385. Western blot analysis of $G_{\alpha \text{ olf}}$ expression in Y79 whole cell lysate.



$G_{\alpha \text{ olf}}$ (K-19): sc-385. Western blot analysis of $G_{\alpha \text{ olf}}$ expression in H19-7/IGF-IR whole cell lysate.

SELECT PRODUCT CITATIONS

- Sinnarajah, S., et al. 1998. Inhibition and enhancement of odorant-induced cAMP accumulation in rat olfactory cilia by antibodies directed against $G_{\alpha s/\text{olf}}$ and $G_{\alpha i}$ -protein subunits. *FEBS Lett.* 426: 377-380.
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- Von Dannecker, L.E., et al. 2006. Ric-8B promotes functional expression of odorant receptors. *Proc. Natl. Acad. Sci. USA* 103: 9310-9314.
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Try $G_{\alpha s/\text{olf}}$ (A-5): sc-55545 or $G_{\alpha s/\text{olf}}$ (E-7): sc-55546, our highly recommended monoclonal alternatives to $G_{\alpha \text{ olf}}$ (K-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see $G_{\alpha s/\text{olf}}$ (A-5): sc-55545.