

G α i-2 (L5): sc-13534

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 (i.e. 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 α_s , G α_i , G α_q and G $\alpha_{12/13}$. The G α_i class comprises all the known α subunits that are susceptible to pertussis toxin modifications, including G α_{i-1} , G α_{i-2} , G α_{i-3} , G α_o , G α_{t1} , G α_{t2} , G α_z and G α_{gust} . Of these, the three G α_i subtypes function to open atrial potassium channels.

REFERENCES

1. Jones, D.T., et al. 1990. Biochemical characterization of three stimulatory GTP-binding proteins. The large and small forms of G α_s and the olfactory-specific G protein, G α_{olf} . *J. Biol. Chem.* 265: 2671-2676.
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3. Cali, J.J., et al. 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.
4. McLaughlin, S.K., et al. 1992. Gustducin is a taste-cell-specific G protein closely related to the transducins. *Nature* 357: 563-569.

CHROMOSOMAL LOCATION

Genetic locus: GNAI2 (human) mapping to 3p21.2; Gnai2 (mouse) mapping to 9 F1.

SOURCE

G α_{i-2} (L5) is a mouse monoclonal antibody raised against G α_{i-2} of rat origin.

PRODUCT

Each vial contains 200 μ g IgG $_{2b}$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

G α_{i-2} (L5) is recommended for detection of G α_{i-2} of mouse, rat, human and bovine 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for G α_{i-2} siRNA (h): sc-41752 and G α_{i-2} siRNA (m): sc-41753.

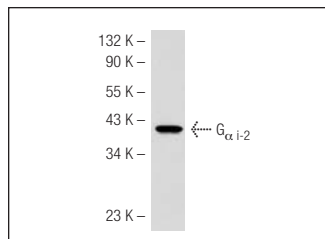
Molecular Weight of G α_{i-2} : 41 kDa.

Positive Controls: U-937 cell lysate: sc-2239.

STORAGE

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

DATA



G α_{i-2} (L5): sc-13534. Western blot analysis of G α_{i-2} expression in U-937 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Peele, P., et al. 2003. Low molecular weight constituents of male mouse urine mediate the pregnancy block effect and convey information about the identity of the mating male. *Eur. J. Neurosci.* 18: 622-628.
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RESEARCH USE

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