

G α t₂ (I-20): sc-390



The Power to Question

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_{i-4} , G α_{i-5} , G α_{i-6} , G α_{i-7} , G α_{i-8} , G α_{i-9} , G α_{i-10} , G α_{i-11} , G α_{i-12} , G α_{i-13} , G α_{i-14} , G α_{i-15} and G α_{i-16} . In the well characterized visual system, photorhodopsin catalyzes the exchange of guanine nucleotides bound to the visual transducin G α subunits (G α_{t1} in rod cells and G α_{t2} in cone cells).

CHROMOSOMAL LOCATION

Genetic locus: GNAT2 (human) mapping to 1p13.3; Gnat2 (mouse) mapping to 3 F2.3.

SOURCE

G α_{t2} (I-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a highly divergent domain of G α_{t2} of bovine 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-390 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

G α_{t2} (I-20) is recommended for detection of G α_{t2} of mouse, rat and human 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), 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).

G α_{t2} (I-20) is also recommended for detection of G α_{t2} in additional species, including equine, canine and bovine.

Suitable for use as control antibody for G α_{t2} siRNA (h): sc-105383, G α_{t2} siRNA (m): sc-43785, G α_{t2} shRNA Plasmid (h): sc-105383-SH, G α_{t2} shRNA Plasmid (m): sc-43785-SH, G α_{t2} shRNA (h) Lentiviral Particles: sc-105383-V and G α_{t2} shRNA (m) Lentiviral Particles: sc-43785-V.

Positive Controls: HeLa whole cell lysate: sc-2200.

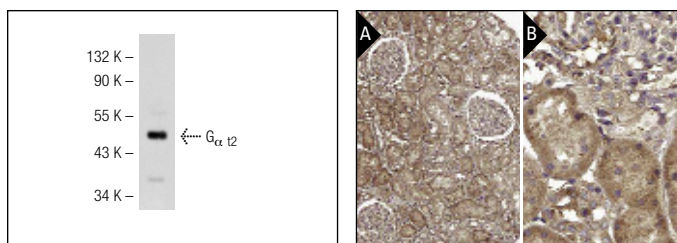
STORAGE

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 α_{t2} (I-20): sc-390. Western blot analysis of G α_{t2} expression in HeLa whole cell lysate.

G α_{t2} (I-20): sc-390. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

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