

G_{γ7} (S-14): sc-377

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. Evidence, however, has established an important regulatory role for the $\beta\gamma$ subunits. It is becoming increasingly clear that different G protein complexes expressed in different tissues carry structurally distinct members of the γ as well as the α and β subunits and that preferential associations between members of subunit families increase G protein functional diversity.

CHROMOSOMAL LOCATION

Genetic locus: GNG7 (human) mapping to 19p13.3; Gng7 (mouse) mapping to 10 C1.

SOURCE

G_{γ7} (S-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of G_{γ7} 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-377 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

G_{γ7} (S-14) is recommended for detection of G_{γ7} of broad species origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for G_{γ7} siRNA (h): sc-41780, G_{γ7} siRNA (m): sc-41781, G_{γ7} shRNA Plasmid (h): sc-41780-SH, G_{γ7} shRNA Plasmid (m): sc-41781-SH, G_{γ7} shRNA (h) Lentiviral Particles: sc-41780-V and G_{γ7} shRNA (m) Lentiviral Particles: sc-41781-V.

Molecular Weight of G_{γ7}: 5 kDa.

Positive Controls: rat brain extract: sc-2392 or mouse brain extract: sc-2253.

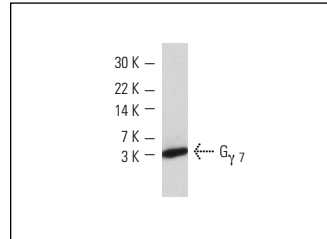
STORAGE

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

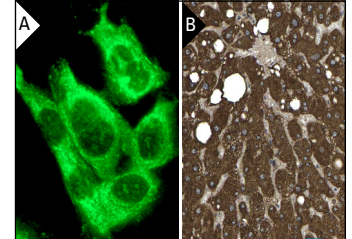
RESEARCH USE

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

DATA



G_{γ7} (S-14): sc-377. Western blot analysis of G_{γ7} expression in rat brain extract.



G_{γ7} (S-14): sc-377. Immunofluorescence staining of methanol-fixed SK-N-SH cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes and bile duct cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

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- Kolesnikov, A.V., et al. 2011. G-protein $\beta\gamma$ -complex is crucial for efficient signal amplification in vision. J. Neurosci. 31: 8067-8077.
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Try G_{γ2/3/4/7} (C-5): sc-166419, our highly recommended monoclonal alternative to G_{γ7} (S-14).