

G_γ2 (7-RE20): sc-134344

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 (i.e. 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.

REFERENCES

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- 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.
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CHROMOSOMAL LOCATION

Genetic locus: GNG2 (human) mapping to 14q22.1; Gng2 (mouse) mapping to 14 A3.

SOURCE

G_γ2 (7-RE20) is a mouse monoclonal antibody raised against recombinant G_γ2 protein of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

G_γ2 (7-RE20) is recommended for detection of G_γ2 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for G_γ2 siRNA (h): sc-41774, G_γ2 siRNA (m): sc-41775, G_γ2 shRNA Plasmid (h): sc-41774-SH, G_γ2 shRNA Plasmid (m): sc-41775-SH, G_γ2 shRNA (h) Lentiviral Particles: sc-41774-V and G_γ2 shRNA (m) Lentiviral Particles: sc-41775-V.

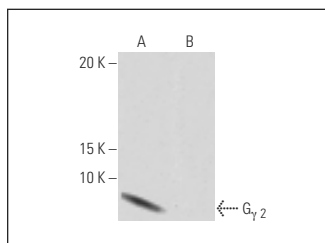
Molecular Weight of G_γ2: 3-8 kDa.

Positive Controls: human G_γ2 transfected 293T whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



G_γ2 (7-RE20): sc-134344. Western blot analysis of G_γ2 expression in human G_γ2 transfected (A) and non-transfected (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Dexter, P.M., et al. 2018. Transducin β -subunit can interact with multiple G-protein γ -subunits to enable light detection by rod photoreceptors. *eNeuro* 5: ENEURO.0144-18.2018.

RESEARCH USE

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

PROTOCOLS

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