SANTA CRUZ BIOTECHNOLOGY, INC.

GIT2 (C-15): sc-5416

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Heterotrimeric G protein-mediated signal transduction is a dynamically regulated process with the intensity of signal decreasing over time despite the continued presence of the agonist. G protein-coupled receptor kinases (GRKs) are activated by activated G protein-coupled receptors, and they function to phosphorylate and inactivate cell surface receptors in the heterotrimeric G protein signaling cascade. GIT1 (for GRK-interactor 1) and GIT2 are GTPase-activating proteins (GAP) for members of the ADP ribosylation factor (ARF) family of small GTP-binding proteins, which are involved in vesicular trafficking. GIT1 overexpression results in reduced internalization and resensitization of β_2-adrenergic receptor, thus reducing β_2-adrenergic receptor signaling.

REFERENCES

1. Hausdorff, W.P., et al. 1990. Turning off the signal: desensitization of β-adrenergic receptor function. FASEB J. 4: 2881-2889.
2. Pei, G., et al. 1994. An approach to the study of G protein-coupled receptor kinases: an *in vitro*-purified membrane assay reveals differential receptor specificity and regulation by $G_{\beta\gamma}$ subunits. Proc. Natl. Acad. Sci. USA 91: 3633-3636.
3. Lefkowitz, R.J. 1998. G protein-coupled receptors. III. New roles for receptor kinases and β-Arrestins in receptor signaling and desensitization. J. Biol. Chem. 273: 18677-18680.
4. Pitcher, J.A., et al. 1998. G protein-coupled receptor kinases. Annu. Rev. Biochem. 67: 653-692.
5. Premont, R.T., et al. 1998. β_2-adrenergic receptor regulation by GIT1, a G protein-coupled receptor kinase-associated ADP ribosylation factor GTPase-activating protein. Proc. Natl. Acad. Sci. USA 95: 14082-14087.
6. Premont, R.T., et al. 2000. The GIT family of ADP-ribosylation factor GTPase-activating proteins. Functional diversity of GIT2 through alternative splicing. J. Biol. Chem. 275: 22373-22380.

CHROMOSOMAL LOCATION

Genetic locus: GIT2 (human) mapping to 12q24.1; Git2 (mouse) mapping to 5 F.

SOURCE

GIT2 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GIT2 of human 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-5416 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

GIT2 (C-15) is recommended for detection of GIT2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

GIT2 (C-15) is also recommended for detection of GIT2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for GIT2 siRNA (h): sc-40637, GIT2 siRNA (m): sc-40636, GIT2 shRNA Plasmid (h): sc-40637-SH, GIT2 shRNA Plasmid (m): sc-40636-SH, GIT2 shRNA (h) Lentiviral Particles: sc-40637-V and GIT2 shRNA (m) Lentiviral Particles: sc-40636-V.

Molecular Weight of GIT2: 85 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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