SANTA CRUZ BIOTECHNOLOGY, INC.

GIT2 (E-5): sc-515310

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., Caron, M.G. and Lefkowitz, R.J. 1990. Turning off the signal: desensitization of β-adrenergic receptor function. FASEB J. 4: 2881-2889.
2. Pei, G., Tiberi, M., Caron, M.G. and Lefkowitz, R.J. 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., Freedman, N.J. and Lefkowitz, R.J. 1998. G protein-coupled receptor kinases. Annu. Rev. Biochem. 67: 653-692.

CHROMOSOMAL LOCATION

Genetic locus: GIT2 (human) mapping to 12q24.11.

SOURCE

GIT2 (E-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 14-33 near the N-terminus of GIT2 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515310 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

GIT2 (E-5) is recommended for detection of GIT2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

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

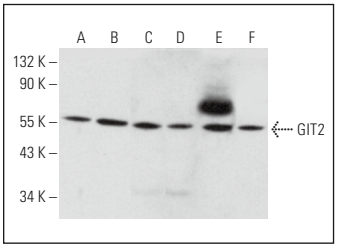
Molecular Weight of GIT2: 85 kDa.

Positive Controls: Hep G2 nuclear extract: sc-364819, Jurkat whole cell lysate: sc-2204 or MDA-MB-231 cell lysate: sc-2232.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



GIT2 (E-5): sc-515310. Western blot analysis of GIT2 expression in Hep G2 nuclear extract (**A**) and Jurkat (**B**), A-431 (**C**), MDA-MB-231 (**D**), Ramos (**E**) and HeLa (**F**) whole cell lysates.

RESEARCH USE

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