

# SGEF (C-15): sc-103213

## BACKGROUND

The Ras superfamily of GTPases, which can be subdivided into the Ras, Rho/Rac, Sar, Rab, ARF and Ran subfamilies, controls multiple aspects of cell function, including cytoskeletal rearrangement, nuclear signaling and cell growth. The Ras superfamily of GTPases function as regulated switches that toggle between a biologically active GTP-bound and an inactive GDP-bound form. This activation is catalyzed by guanine nucleotide exchange factors (GEFs). SGEF (SH3-containing guanine nucleotide exchange factor), also known as CSGEF, is an 871 amino acid RhoGEF that is highly expressed in adult liver tissue and is thought to regulate membrane dynamics during macropinocytosis (invagination of the cell membrane to form a vesicle pocket). SGEF is found in prostate cancer cells, suggesting a role for SGEF in carcinogenesis. Multiple isoforms of SGEF exist due to alternative splicing events.

## REFERENCES

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2. Chong, Y.P., Mulhern, T.D., Zhu, H.J., Fujita, D.J., Bjorge, J.D., Tantiongco, J.P., Sotirellis, N., Lio, D.S., Scholz, G. and Cheng, H.C. 2004. A novel non-catalytic mechanism employed by the C-terminal Src-homologous kinase to inhibit Src-family kinase activity. *J. Biol. Chem.* 279: 20752-20766.
3. Ellerbroek, S.M., Wennerberg, K., Arthur, W.T., Dunty, J.M., Bowman, D.R., DeMali, K.A., Der, C. and Burridge, K. 2004. SGEF, a Rho G guanine nucleotide exchange factor that stimulates macropinocytosis. *Mol. Biol. Cell* 15: 3309-3319.
4. McGee, A.W., Nunziato, D.A., Maltez, J.M., Prehoda, K.E., Pitt, G.S. and Brecht, D.S. 2004. Calcium channel function regulated by the SH3-GK module in  $\beta$  subunits. *Neuron* 42: 89-99.

## CHROMOSOMAL LOCATION

Genetic locus: SGEF (human) mapping to 3q25.2.

## SOURCE

SGEF (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SGEF of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103213 P, (100  $\mu$ g 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

SGEF (C-15) is recommended for detection of SGEF of human and rat 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).

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

Suitable for use as control antibody for SGEF siRNA (h): sc-78233, SGEF shRNA Plasmid (h): sc-78233-SH and SGEF shRNA (h) Lentiviral Particles: sc-78233-V.

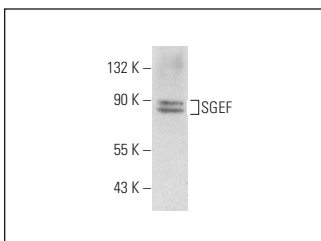
Molecular Weight of SGEF: 97 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260, HeLa whole cell lysate: sc-2200 or SK-BR-3 cell lysate: sc-2218.

## 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.

## DATA



SGEF (C-15): sc-103213. Western blot analysis of SGEF expression in WI-38 whole cell lysate.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Guaranteed

Try **SGEF (E-5): sc-514048**, our highly recommended monoclonal alternative to SGEF (C-15).