

SERGEF (H-128): sc-98650

BACKGROUND

SERGEF (secretion-regulating guanine nucleotide exchange factor), also called DelGEF (deafness locus-associated putative guanine nucleotide exchange factor), is a guanine nucleotide exchange factor which is thought to be involved in secretion pathways. SERGEF associates with Sec5, a protein required for secretion, in a magnesium-dependent manner and is stimulated by the presence of deoxycytidine triphosphate (dCTP) or guanosine triphosphate (GTP). A homolog of RanGEF, SERGEF is localized to the nucleus and cytoplasm and is expressed throughout the body with high expression observed in the brain, placenta and skeletal muscle. SERGEF is a 458 amino acid protein which, upon DNA damage, is phosphorylated by Atm or ATR. Two isoforms exist due to alternative splicing.

REFERENCES

- Uhlmann, J., et al. 1999. DelGEF, an RCC1-related protein encoded by a gene on chromosome 11p14 critical for two forms of hereditary deafness. *FEBS Lett.* 460: 153-160.
- Sjölander, M., et al. 2002. DelGEF, a homologue of the Ran guanine nucleotide exchange factor RanGEF, binds to the exocyst component Sec5 and modulates secretion. *FEBS Lett.* 532: 211-215.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606051. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Mott, H.R., et al. 2003. Structure of the GTPase-binding domain of Sec5 and elucidation of its Ral binding site. *J. Biol. Chem.* 278: 17053-17059.
- Sjölander, M., et al. 2004. Characterisation of an evolutionary conserved protein interacting with the putative guanine nucleotide exchange factor DelGEF and modulating secretion. *Exp. Cell Res.* 294: 68-76.

CHROMOSOMAL LOCATION

Genetic locus: SERGEF (human) mapping to 11p15.1; Sergef (mouse) mapping to 7 B4.

SOURCE

SERGEF (H-128) is a rabbit polyclonal antibody raised against amino acids 17-144 mapping within an internal region of SERGEF 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.

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 or our catalog for detailed protocols and support products.

APPLICATIONS

SERGEF (H-128) is recommended for detection of SERGEF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

SERGEF (H-128) is also recommended for detection of SERGEF in additional species, including bovine and porcine.

Suitable for use as control antibody for SERGEF siRNA (h): sc-96513, SERGEF siRNA (m): sc-153345, SERGEF shRNA Plasmid (h): sc-96513-SH, SERGEF shRNA Plasmid (m): sc-153345-SH, SERGEF shRNA (h) Lentiviral Particles: sc-96513-V and SERGEF shRNA (m) Lentiviral Particles: sc-153345-V.

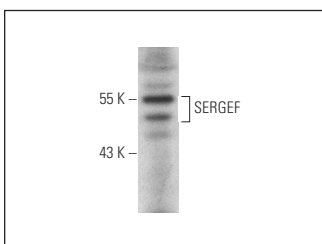
Molecular Weight of SERGEF: 49 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SERGEF (H-128): sc-98650. Western blot analysis of SERGEF expression in HeLa whole cell lysate.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **SERGEF (H-12): sc-515188** or **SERGEF (2261C3a): sc-81078**, our highly recommended monoclonal alternatives to SERGEF (H-128).