

SWAP-70 (E-16): sc-10883

BACKGROUND

SWAP-70 is a 70 kDa protein that is part of a protein complex that catalyzes cell-free DNA recombination between immunoglobulin (Ig) heavy chain gene switch region substrates. In resting B lymphocytes, SWAP-70 is localized mainly in the cytoplasm, however, in activated B cells, SWAP-70 is recruited to the plasma membrane and then translocates to the nucleus. In the nucleus, SWAP-70 recognizes specific switch regions, acting as a switch recombinase and causing a DNA break. The cellular and intracellular localization before and after B-cell activation also suggests a role for SWAP-70 in signaling in B cell activation. In addition, SWAP-70 contains three nuclear localization signals, has a weak affinity for DNA, binds ATP, and forms specific, high affinity complexes with B23, C23, and poly (ADP-ribose) polymerase.

REFERENCES

- Borggreve, T., Wabl, M., Akhmedov, A.T., and Jessberger, R. 1998. A B-cell-specific DNA recombination complex. *J. Biol Chem.* 273: 17025-17035.
- Borggreve, T., Masat, L., Wabl, M., Riwar, B., Cattoretto, G., and Jessberger, R. 1999. Cellular, intracellular, and developmental expression patterns of murine SWAP-70. *Eur. J. Immunol.* 29: 1812-1822.
- Qi, C.F., Jessberger, R., Torrey, T.A., Taddesse-Heath, L., Ohta, Y., and Morse, H.C. 3rd. 1999. Differential regulation of germinal center genes, BCL6 and SWAP-70, during the course of MAIDS. *Mol. Immunol.* 36: 1043-1053.
- Masat, L., Liddell, R.A., Mock, B.A., Kuo, W.L., Jessberger, R., Wabl, M., and Morse, H.C. 2000. Mapping of the SWAP-70 gene to mouse chromosome 7 and human chromosome 11p15. *Immunogenetics* 51: 16-19.
- Masat, L., Caldwell, J., Armstrong, R., Khoshnevisan, H., Jessberger, R., Herndier, B., Wabl, M., and Ferric, D. 2000. Association of SWAP-70 with the B cell antigen receptor complex. *Proc. Natl. Acad. Sci.* 97: 2180-2184.

CHROMOSOMAL LOCATION

Genetic locus: SWAP70 (human) mapping to 11p15.4; Swap70 (mouse) mapping to 7 F1.

SOURCE

SWAP-70 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SWAP-70 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-10883 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

SWAP-70 (E-16) is recommended for detection of SWAP-70 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).

Suitable for use as control antibody for SWAP-70 siRNA (h): sc-106898, SWAP-70 siRNA (m): sc-153963, SWAP-70 shRNA Plasmid (h): sc-106898-SH, SWAP-70 shRNA Plasmid (m): sc-153963-SH, SWAP-70 shRNA (h) Lentiviral Particles: sc-106898-V and SWAP-70 shRNA (m) Lentiviral Particles: sc-153963-V.

Molecular Weight of SWAP-70: 70 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, Daudi cell lysate: sc-2415 or HeLa whole cell lysate: sc-2200

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.


 MONOS
Satisfation
Guaranteed

Try **SWAP-70 (F-3): sc-390431** or **SWAP-70 (Q-28): sc-81991**, our highly recommended monoclonal alternatives to SWAP-70 (E-16).