

# SWAP-70 (Q-28): sc-81991

## BACKGROUND

SWAP-70 is a 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

1. Borggreffe, T., et al. 1998. A B-cell-specific DNA recombination complex. *J. Biol Chem.* 273: 17025-17035.
2. Borggreffe, T., et al. 1999. Cellular, intracellular, and developmental expression patterns of murine SWAP-70. *Eur. J. Immunol.* 29: 1812-1822.
3. Qi, C.F., et al. 1999. Differential regulation of germinal center genes, BCL6 and SWAP70, during the course of MAIDS. *Mol. Immunol.* 36: 1043-1053.

## CHROMOSOMAL LOCATION

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

## SOURCE

SWAP-70 (Q-28) is a mouse monoclonal antibody raised against recombinant SWAP-70 of human origin.

## PRODUCT

Each vial contains 50 µg IgG<sub>2a</sub> kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

SWAP-70 (Q-28) 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), 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), immunohistochemistry (including paraffin-embedded sections) (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.

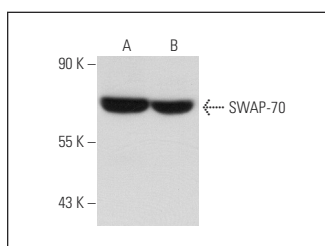
Molecular Weight of SWAP-70: 70 kDa.

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

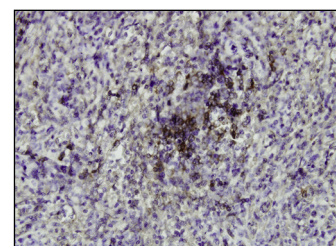
## RECOMMENDED SUPPORT REAGENTS

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, 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 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



SWAP-70 (Q-28): sc-81991. Western blot analysis of human SWAP-70 expression in Daudi (A) and HeLa (B) whole cell lysates.



SWAP-70 (Q-28): sc-81991. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human spleen tissue showing membrane and cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Jiwani, S., et al. 2012. Identification of components of the host type IA phosphoinositide 3-kinase pathway that promote internalization of *Listeria monocytogenes*. *Infect. Immun.* 80: 1252-1266.
2. Chandrasekaran, U., et al. 2016. Regulation of effector Tregs in murine lupus. *Arthritis Rheumatol.* E-published.

## STORAGE

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

## 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) for detailed protocols and support products.