

# SWAP-70 (F-3): sc-390431



The Power to Question

## 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

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- Qi, C.F., Jessberger, R., Torrey, T.A., Taddesse-Heath, L., Ohta, Y. and Morse, H.C. 1999. Differential regulation of germinal center genes, *Bcl6* and SWAP-70, during the course of MAIDS. *Mol. Immunol.* 36: 1043-1053.
- 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. USA* 97: 2180-2184.
- Masat, L., Liddell, R.A., Mock, B.A., Kuo, W.L., Jessberger, R., Wabl, M. and Morse, H.C. 2000. Mapping of the SWAP70 gene to mouse chromosome 7 and human chromosome 11p15. *Immunogenetics* 51: 16-19.

## CHROMOSOMAL LOCATION

Genetic locus: SWAP70 (human) mapping to 11p15.4.

## SOURCE

SWAP-70 (F-3) is a mouse monoclonal antibody raised against amino acids 455-585 mapping at the C-terminus of SWAP-70 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SWAP-70 (F-3) is available conjugated to agarose (sc-390431 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390431 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390431 PE), fluorescein (sc-390431 FITC), Alexa Fluor® 488 (sc-390431 AF488), Alexa Fluor® 546 (sc-390431 AF546), Alexa Fluor® 594 (sc-390431 AF594) or Alexa Fluor® 647 (sc-390431 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390431 AF680) or Alexa Fluor® 790 (sc-390431 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

SWAP-70 (F-3) is recommended for detection of SWAP-70 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), 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 shRNA Plasmid (h): sc-106898-SH and SWAP-70 shRNA (h) Lentiviral Particles: sc-106898-V.

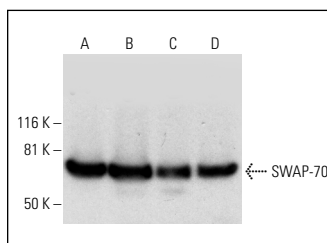
Molecular Weight of SWAP-70: 70 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, BJAB whole cell lysate: sc-2207 or NAMALWA cell lysate: sc-2234.

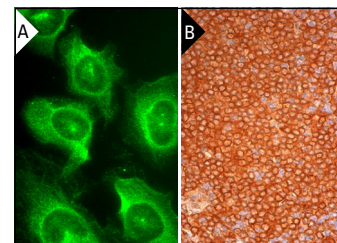
## RECOMMENDED SUPPORT REAGENTS

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 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



SWAP-70 (F-3): sc-390431. Western blot analysis of SWAP-70 expression in Raji (A), BJAB (B), NAMALWA (C) and GA-10 (D) whole cell lysates.



SWAP-70 (F-3): sc-390431. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic and membrane staining of cells in white pulp (B).

## 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.