

SLP-76 (8): sc-136070

BACKGROUND

The translational product of the Vav proto-oncogene is exclusively expressed in cells of hematopoietic origin and is critical for lymphocyte development and activation. However, the biochemical basis of Vav function is unclear. Vav contains a single SH2 domain that is required for its association with the T cell receptor (TCR). Overexpression of Vav or SLP-76 in Jurkat cells leads to NFAT activation and IL-2 production. When co-expressed, Vav and SLP-76 synergize to induce a robust basal and TCR-mediated IL-2 response. Although SLP-76 does not contain a motif that would indicate it to be a member of the tyrosine, serine/threonine or lipid kinase families, it does contain several putative SH2/SH3-binding domains and has been shown to physically associate with the adapter protein GRB2 as well as PLC γ 1. The discovery of SLP-76 represents an important step in elucidating the mechanism of Vav transformation and TCR-mediated NFAT activation.

REFERENCES

1. Katzav, S., et al. 1989. Vav, a novel human oncogene derived from a locus ubiquitously expressed in hematopoietic cells. *EMBO J.* 8: 2283-2290.
2. Bustelo, X.R. and Barbacid, M. 1992. Tyrosine phosphorylation of the Vav proto-oncogene product in activated B cells. *Science* 256: 1196-1199.
3. Jackman, J.K., et al. 1995. Molecular cloning of SLP-76, a 76 kDa tyrosine phosphoprotein associated with GRB2 in T cells. *J. Biol. Chem.* 270: 7029-7032.
4. Hanazono, Y., et al. 1996. Proto-oncogene products Vav and c-Cbl are involved in the signal transduction through GRB2/ASH in hematopoietic cells. *Acta Haematol.* 95: 236-242.
5. Luger, S.M., et al. 1996. A functional analysis of proto-oncogene Vav's role in adult human hematopoiesis. *Blood* 87: 1326-1334.
6. Motto, D.G., et al. 1996. Implication of the GRB2-associated phosphoprotein SLP-76 in T cell receptor-mediated interleukin-2 production. *J. Exp. Med.* 183: 1937-1943.

CHROMOSOMAL LOCATION

Genetic locus: LCP2 (human) mapping to 5q35.1.

SOURCE

SLP-76 (8) is a mouse monoclonal antibody raised against amino acids 369-520 of SLP-76 of human origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 0.5 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.

RESEARCH USE

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

APPLICATIONS

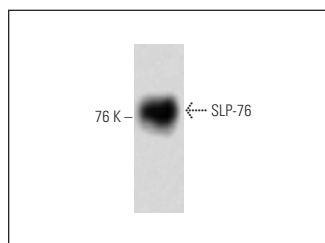
SLP-76 (8) is recommended for detection of SLP-76 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for SLP-76 siRNA (h): sc-36501, SLP-76 shRNA Plasmid (h): sc-36501-SH and SLP-76 shRNA (h) Lentiviral Particles: sc-36501-V.

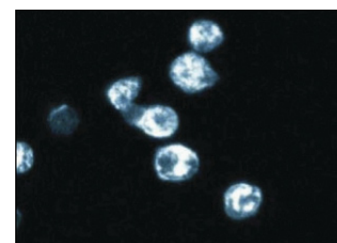
Molecular Weight of SLP-76: 76 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, BJAB whole cell lysate: sc-2207 or THP-1 cell lysate: sc-2238.

DATA



SLP-76 (8): sc-136070. Western blot analysis of SLP-76 expression in Jurkat whole cell lysate.



SLP-76 (8): sc-136070. Immunofluorescence staining of Jurkat cells showing cytoplasmic localization.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.