

Technical Data Sheet

PE Mouse anti-SLP-76

Product Information

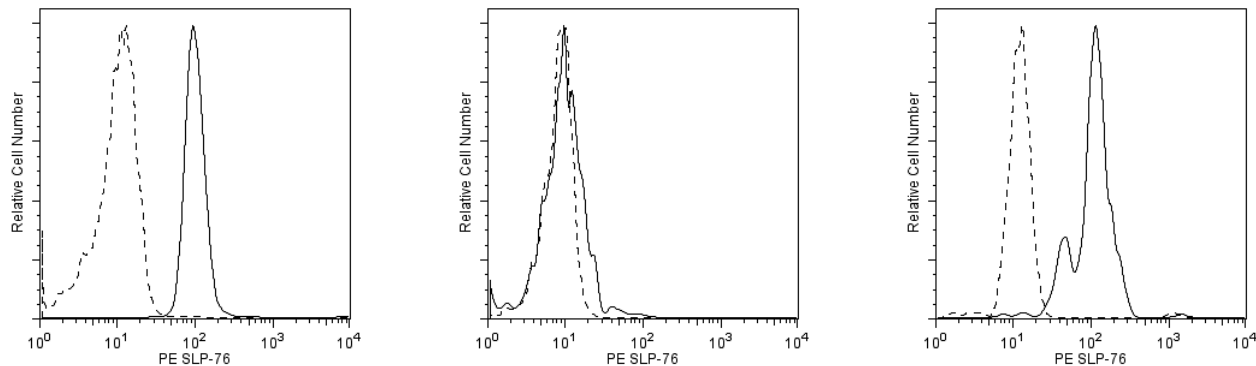
| | |
|-------------------------|---|
| Material Number: | 560058 |
| Size: | 50 tests |
| Vol. per Test: | 20 µl |
| Clone: | H3 |
| Immunogen: | Human SLP-76 SH2 domain Recombinant Protein |
| Isotype: | Mouse (BALB/c) IgG2a, κ |
| Reactivity: | Confirmed: Human Reported: Mouse |
| Storage Buffer: | Aqueous buffered solution containing BSA and ≤0.09% sodium azide. |

Description

SLP-76 (SH2 domain-containing Leukocyte Protein of 76 kDa) is a tyrosine phosphoprotein that is involved in the T cell receptor (TCR)-mediated intracellular signaling pathway. It may be involved in the signaling pathways of other peripheral blood leukocytes; thymic/splenic cells; and in human T, B, and monocytic cell lines. SLP-76 consists of several motifs that signify its importance in protein-protein interactions involved in intracellular signaling pathways, such as the SH2 domain in the C-terminus, the three amino-terminus 17-amino acid repeats with conserved tyrosine and acidic residues (DYE(S/P)P), and a proline rich region. SLP-76 has been shown to associate with Gads, Grb2, PLCγ1, SLAP-130, and Vav, all of which are part of the signaling cascade in T lymphocytes. An early event in the T cell activation pathway is the phosphorylation, by the Syk-family kinase ZAP-70, of SLP-76 at the three conserved tyrosine motifs, which then mediate interactions with downstream effectors.

The H3 monoclonal antibody recognizes SLP-76, regardless of phosphorylation status.

This antibody conjugate is routinely tested by intracellular flow cytometry. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Analysis of SLP-76 in human peripheral blood lymphocytes. Human whole blood was lysed and fixed with 1X BD™ Phosflow Lyse/Fix Buffer (Cat. No. 558049) for 10-15 minutes at 37°C, then permeabilized (BD™ Phosflow Perm Buffer II, Cat. No. 558052) on ice for 30 minutes, and then stained with Alexa Fluor® 647 Mouse Anti-Human CD3 mAb UCHT1 (Cat. No. 557706), PerCP-Cy5.5 anti-human CD20 mAb H1(FB1) (Cat. No. 558021), and either PE Mouse anti-SLP-76 (solid-line histograms) or PE Mouse IgG2a, κ Isotype control mAb MOPC-173 (Cat. No. 558595, dashed-line histograms). The figures show lymphocyte subpopulations that were selected by their scatter profile and surface antigen expression. SLP-76 expression on CD3-positive CD20-negative T lymphocytes (left panel), CD20-positive CD3-negative B lymphocytes (center panel), and CD20-negative CD3-negative NK cells (right panel) are displayed. There was no detectable expression of SLP-76 in the monocyte/granulocyte population (not shown). Flow cytometry was performed on a BD™ FACSCalibur flow cytometry system.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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Application Notes

Application

Intracellular staining (flow cytometry)

Routinely Tested

Suggested Companion Products

| <u>Catalog Number</u> | <u>Name</u> | <u>Size</u> | <u>Clone</u> |
|-----------------------|--|-------------|--------------|
| 558049 | Lyse/Fix Buffer 5X | 250 ml | (none) |
| 558052 | Perm Buffer II | 125 ml | (none) |
| 558595 | PE Mouse IgG2a, κ Isotype Control | 50 tests | MOPC-173 |

Product Notices

1. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
2. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Bonilla FA, Fujita RM, Pivniouk VI, Chan AC, Geha RS. Adapter proteins SLP-76 and BLNK both are expressed by murine macrophages and are linked to signaling via Fc γ receptors I and II/III. *Proc Natl Acad Sci U S A*. 2000; 97(4):1725-1730. (Clone-specific: Immunoprecipitation)

Fang N, Motto DG, Ross SE, Koretzky GA. Tyrosines 113, 128, and 145 of SLP-76 are required for optimal augmentation of NFAT promoter activity. *J Immunol*. 1996; 157:3769-3773. (Biology)

Janssen E, Zhang W. Adaptor proteins in lymphocyte activation. *Curr Opin Immunol*. 2003; 15:269-276. (Biology)

Wardenburg JB, Fu C, Jackman JK, et al. Phosphorylation of SLP-76 by the ZAP-70 protein-tyrosine kinase is required for T-cell receptor function. *J Biol Chem*. 1996; 271(33):19641-19644. (Immunogen: Immunoprecipitation, Western blot)

Wu JN, Koretzky GA. The SLP-76 family of adapter proteins. *Semin Immunol*. 2004; 16:379-393. (Biology)