Technical Data Sheet

Purified Mouse anti-SLP-76 (pY113)

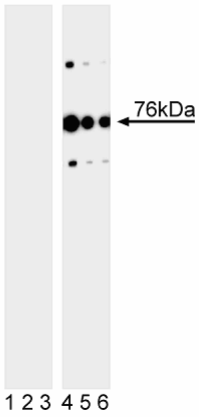
Product Information

Material Number:	**558388**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	J80-373
Immunogen:	Phosphorylated Human SLP-76 Peptide
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human
Target MW:	76 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

SLP-76 (*S*H2 domain-containing *L*eukocyte *P*rotein 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 phosphorylated tyrosine 113 (Y113) brings into the signaling complex the Rho-family guanine-nucleotide exchange factor Vav1, which is involved in the formation of a multimolecular assembly that participates in TCR-stimulated actin cytoskeletal rearrangement.

The J80-373 monoclonal antibody recognizes the phosphorylated Y113 of activated SLP-76.



Western blot analysis of SLP-76 (pY113) in human T leukemia. *Lysates from control (lanes 1-3) and hydrogen peroxide-activated (lanes 4-6) Jurkat cells were probed with purified mouse anti-SLP-76 (pY113) monoclonal antibody at concentrations of 0.0039 (lanes 1 and 4), 0.0019 (lanes 2 and 5), and 0.0010 µg/ml (lanes 3 and 6). SLP-76 (pY113) is identified as a band of 76 kDa in the treated cells.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Western blot	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. 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.

References

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)

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