SLP-76 Antibody

For Research Use Only. Not For Use In Diagnostic Procedures.

Background: SH2 domain-containing leukocyte protein of 76 kDa (SLP-76) is a hematopoietic adapter protein that is important in multiple biochemical signaling pathways and necessary for T cell development and activation (1). ZAP-70 phosphorylates SLP-76 and LAT as a result of TCR ligation. SLP-76 has amino-terminal tyrosine residues followed by a proline rich domain and a carboxy-terminal SH2 domain. Phosphorylation of Tyr113 and Tyr128 result in recruitment of the GEF Vav and the adapter protein Nck (2). TCR ligation also mediates an association between SLP-76 and Itk, which is accomplished in part via the proline rich domain of SLP-76 and the SH3 domain of ITK. Furthermore, the proline rich domain of SLP-76 binds to the SH3 domains of Grb2-like adapter Gads (3-4). In resting cells, SLP-76 is predominantly in the cytosol. Upon TCR ligation, SLP-76 translocates to the plasma membrane and promotes the assembly of a multi-protein signaling complex that includes Vav, Nck, Itk and PLCg1 (1). The expression of SLP-76 is tightly regulated: the protein is detected at very early stages of thymocyte development, increases as thymocyte maturation progresses, and is reduced as cells mature to CD4+CD8+ double-positive thymocytes (5).

Specificity/Sensitivity: SLP-76 Antibody detects endogenous levels of total SLP-76 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human SLP-76. Antibodies are purified by protein A and peptide affinity chromatography.

Recommended Antibody Dilutions:
Western Blotting 1:1000
Immunoprecipitation 1:50
Immunohistochemistry (Paraffin) 1:100
Unmasking buffer: Citrate
Antibody diluent: SignalStain® Antibody Diluent #8112

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western  IP—Immunoprecipitation  IHC—Immunohistochemistry  ChIP—Chromatin Immunoprecipitation  IF—Immunofluorescence  F—Flow cytometry  E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human  M—mouse  R—rat  Hm—hamster  Mk—monkey  Mi—mink  C—chicken  Dm—D. melanogaster  X—Xenopus  Z—zebrafish  B—bovine  Dg—dog  Pg—pig  Sc—S. cerevisiae  Ce—C. elegans  Hr—Horse  All—all species expected  Species enclosed in parentheses are predicted to react based on 100% homology.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Species Cross-Reactivity:

<table>
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<th>Applications</th>
<th>Species Cross-Reactivity</th>
<th>Molecular Wt.</th>
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<tr>
<td>W, IP, IHC-P</td>
<td>H, M</td>
<td>76 kDa</td>
<td>Rabbit**</td>
<td>Endogenous</td>
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Western blot analysis of extracts from Jurkat and BW5147 cells, using SLP-76 Antibody.

Immunohistochemical analysis of paraffin-embedded human tonsil using SLP-76 Antibody.

Immunohistochemical analysis of paraffin-embedded human colon using SLP-76 Antibody in the presence of control peptide (upper) or antigen-specific peptide (lower).

Entrez-Gene ID # 3937
Swiss-Prot Acc. # Q13094

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