

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                                                                      |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Lck when phosphorylated at Y394. Due to high sequence homology, this antibody may cross-react with phosphorylated members of the Src family. |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>2B</sub> Clone # 755103                                                                                                          |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                                                                                                 |
| <b>Immunogen</b>                                                                                                                                                                                        | Phosphopeptide containing the human Lck Y394 site<br>Accession # P06239                                                                                    |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                            |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                                                               |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                                                                            |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Lck (p56lck) is a 56 kDa cytosolic phosphoprotein within the Src family of non-receptor tyrosine kinases. The 509 amino acid (aa) human Lck contains an SH3 domain (aa 61-121), an SH2 domain (aa 127-224) and a protein kinase domain (aa 251-259). A short (363 aa) isoform contains alternate sequence starting at aa 348, while a 539 aa isoform contains inserted sequence after aa 321. Lck interacts with T cell CD4 and CD8 molecules and plays a pivotal role in regulating T cell activation. It can be overexpressed in cancers and functions as an oncogene. Y394 is the major site for autophosphorylation that enhances kinase activity, while Y505 is the major phosphorylation site for negative regulation.

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