

#2751 Store at -20°C

Phospho-Lck (Tyr505) Antibody



✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID # 3932
Swiss-Prot Acc. # P06239

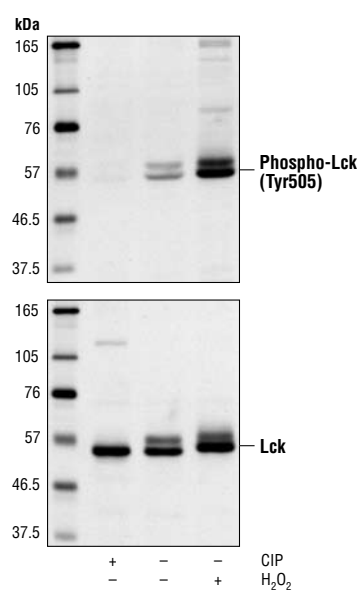
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M	56 kDa	Rabbit**

Background: The Src family of protein tyrosine kinases (including Src, Lyn, Fyn, Yes, Lck, Blk and Hck) are important in the regulation of growth and differentiation of eukaryotic cells (1). Src activity is regulated by tyrosine phosphorylation at two sites, but with opposing effects. Phosphorylation of Tyr416 in the activation loop of the kinase domain by Csk upregulates enzyme activity, whereas phosphorylation of Tyr527 in the carboxy-terminal tail renders the enzyme less active (2).

Lck is essential for T-lymphocyte activation and differentiation (3,4). Phosphorylation of Tyr505 in the carboxy-terminal tail of Lck downregulates its catalytic activity, while phosphorylation of Tyr394 leads to an increase in Lck activity (5).

Specificity/Sensitivity: Phospho-Lck (Tyr505) Antibody detects endogenous levels of Lck only when phosphorylated at Tyr505. This antibody may cross-react with certain phosphorylated Src family members due to high sequence homology.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr505 of human Lck. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from Jurkat cells (starved for 16 hours) treated with calf intestinal alkaline phosphatase (CIP) or H₂O₂ (2 mM), using Phospho-Lck (Tyr505) Antibody (upper) or control Lck Antibody #2752 (lower).

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.

Recommended Antibody Dilutions:
Western Blotting 1:1000
Immunoprecipitation 1:100

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.

- Background References:**
- (1) Thomas, S.M. and Brugge, J.S. (1997) *Annu. Rev. Cell Dev. Biol.* 13, 513-609.
 - (2) Hunter, T. (1987) *Cell* 49, 1-4.
 - (3) Molina, T. J. et al. (1992) *Nature* 357, 161-164.
 - (4) Straus, D. B. et al. (1992) *Cell* 70, 585-593.
 - (5) Chow, L. M. et al. (1993) *Nature* 365, 156-160

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.

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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.