

#2101 Store at -20C

## Phospho-Src Family (Tyr416) Antibody



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**Orders:** 877-616-CELL (2355)  
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**Web:** info@cellsignal.com  
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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source: | UniProt ID:  | Entrez-Gene Id:                       |
|---------------|-------------|--------------|-----------|---------|--|---------------------------------------|
| WB            | H M R       | Endogenous   | 60        | Rabbit  | #P07947, #P07948,<br>#P06239, #P08631,<br>#P12931, #P06241 | 7525, 4067, 3932,<br>3055, 6714, 2534 |

|   |   |                           |
|---|---|---------------------------|
| <b>Product Usage Information</b>                                  | <b>Application</b><br>Western Blotting  | <b>Dilution</b><br>1:1000 |
| <b>Storage</b>  | 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.  |                           |
| <b>Specificity / Sensitivity</b>                                  | Phospho-Src Family (Tyr416) Antibody detects endogenous levels of Src only when phosphorylated at tyrosine 416. The antibody may cross-react with other Src family members (Lyn, Fyn, Lck, Yes and Hck) when phosphorylated at equivalent sites. It does not cross-react with Src phosphorylated at tyrosine 527. It may cross react with phosphorylated RTKs.  |                           |
| <b>Species predicted to react based on 100% sequence homology</b> | Chicken, Xenopus  |                           |
| <b>Source / Purification</b>                                      | Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr419 of human Src. Antibodies are purified by protein A and peptide affinity chromatography.   |                           |
| <b>Background</b>   | <p>The Src family of protein tyrosine kinases, which includes 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. While phosphorylation at Tyr416 in the activation loop of the kinase domain upregulates enzyme activity, phosphorylation at Tyr527 in the carboxy-terminal tail by Csk renders the enzyme less active (2).</p> <p>Lyn is a member of the Src family that is predominantly expressed in hematopoietic cells (3). Lyn participates in signaling from multiple cell surface receptors such as the B cell antigen receptor (BCR) and CD40 (4).</p> <p>Lck is essential for T-lymphocyte activation and differentiation (5,6). Phosphorylation of the carboxy-terminal Tyr505 downregulates Lck activity, while phosphorylation at Tyr394 leads to an increase in Lck activity (7).</p> |                           |
| <b>Background References</b>                                      | <ol style="list-style-type: none"><li>1. Thomas, S.M. and Brugge, J.S. (1997) <i>Annu Rev Cell Dev Biol</i> 13, 513-609.</li><li>2. Hunter, T. (1987) <i>Cell</i> 49, 1-4.</li><li>3. Yamanashi, Y. et al. (1989) <i>Proc Natl Acad Sci U S A</i> 86, 6538-42.</li><li>4. Yamanashi, Y. et al. (1991) <i>Science</i> 251, 192-4.</li><li>5. Molina, T.J. et al. (1992) <i>Nature</i> 357, 161-4.</li><li>6. Straus, D.B. and Weiss, A. (1992) <i>Cell</i> 70, 585-93.</li><li>7. Chow, L.M. et al. (1993) <i>Nature</i> 365, 156-60.</li></ol>  |                           |

|                             |  |
|-----------------------------|--|
| <b>Species Reactivity</b>   | Species reactivity is determined by testing in at least one approved application (e.g., western blot).   |
| <b>Western Blot Buffer</b>  | IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight. |
| <b>Applications Key</b>     | <b>WB:</b> Western Blotting  |
| <b>Cross-Reactivity Key</b> |  |

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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