

# Non-phospho-Src (Tyr416) (7G9) Mouse mAb

✓ 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 #6714  
Swiss-Prot Acc. #P12931

Applications W, IP Endogenous	Species Cross-Reactivity* H, M, R, (C,X)	Molecular Wt. 60 kDa	Isotype Mouse IgG2b**
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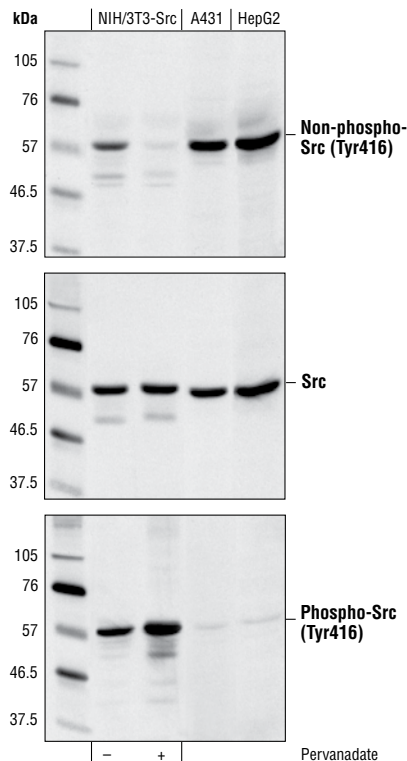
**Background:** The Src family of protein tyrosine kinases, which includes Src, Lyn, Fyn, Yes, Lck, Blk and Hck, are important in the regulation of growth and differentiation of eukaryotic cells (1). Src activity is regulated by tyrosine phosphorylation at two sites, but with opposing effects. Phosphorylation of Tyr416 in the activation loop of the kinase domain upregulates enzyme activity. Phosphorylation of Tyr527 in the carboxy-terminal tail by Csk renders the enzyme less active (2).

**Specificity/Sensitivity:** Non-phospho-Src (Tyr416) (7G9) Mouse mAb detects endogenous levels of Src only when dephosphorylated at tyrosine 416. The antibody cross-reacts with other Src family members (Lyn, Fyn, Lck, Yes and Hck) dephosphorylated at equivalent sites.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Tyr416 of human Src.

#### 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.



Western blot analysis of extracts from pervanadate-treated (1 mM for 5 minutes) NIH/3T3 cells that have been stably transfected with a constitutively active form of Src (in which the regulatory Tyr527 residue has been mutated to phenylalanine), A431 cells and HepG2 cells using Non-phospho-Src (Tyr416) (7G9) Mouse mAb (top), v-Src antibody (middle) or Phospho-Src (Tyr416) Antibody #2101 (bottom).

**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.

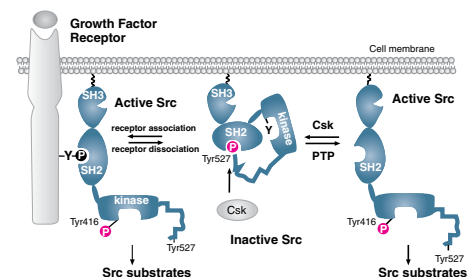
\*\*Anti-mouse secondary antibodies must be used to detect this antibody.

#### 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](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.



Mechanisms of Src activation and inactivation (adapted from Bjorge, J.D., et al. (2000) *Oncogene* 19, 5620–35).

**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 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.