

✓ 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.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, (R)	53, 56 kDa	Rabbit**

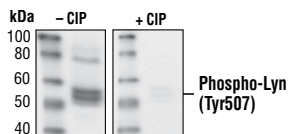
Background: Lyn, one of the Src family members, is predominantly expressed in hematopoietic cells (1). Two tyrosine residues have been reported to play a crucial role in the regulation of protein tyrosine kinases of the Src family. Autophosphorylation of Tyr396 (equivalent to Tyr416 of Src), located in the catalytic domain, correlates with enzyme activation. Csk-mediated phosphorylation of the carboxy-terminal Tyr507 (equivalent to Tyr527 of Src) inactivates the kinase. Tyrosine phosphorylation and activation of Lyn occurs upon association with cell surface receptors such as the B cell Ag receptor (BCR) and CD40 (2-4). Studies using knockout mice have shown that the net effect of Lyn deficiency is to render B cells hypersensitive to BCR stimulation (5-7), suggesting that the most critical role for Lyn *in vivo* is in the down-regulation of B cell responses. Lyn is also involved in controlling the migration and development of specific B cell populations (8).

Specificity/Sensitivity: Phospho-Lyn (Tyr507) Antibody detects endogenous levels of Lyn only when phosphorylated at Tyr507. The antibody may cross-react with phospho-Lck (Tyr505) and phospho-Src (Tyr527) due to high sequence homology.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr507 of human Lyn. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Yamanashi, Y. et al. (1989) *Proc. Natl. Acad. Sci. USA* 86, 6538-6542.
- (2) Yamanashi, Y. et al. (1991) *Science* 251, 192-194.
- (3) Burkhardt, A.L. et al. (1991) *Proc. Natl. Acad. Sci. USA* 88, 7410-7414.
- (4) Ren, C.L. et al. (1994) *J. Exp. Med.* 179, 673-680.
- (5) Wang, J. et al. (1996) *J. Exp. Med.* 184, 831-838.
- (6) Chan, V.W. et al. (1997) *Immunity* 7, 69-81.
- (7) Hibbs, M. L. et al. (1995) *Cell* 83, 301-311.
- (8) Seo, S.J. et al. (2001) *J. Immunol.* 166, 3710-3723.



Western blot analysis of extracts from Ramos cells treated with anti-IgM antibody (12 µg/ml for 2 minutes), using Phospho-Lyn (Tyr507) Antibody. The phospho-specificity of the antibody was characterized by treating the membrane without or with calf intestinal alkaline phosphatase (CIP) after western transfer.

Entrez-Gene ID # 4067
Swiss-Prot Acc. # P07948

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

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.