

Phospho-Lyn (Tyr507) Antibody

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M	Endogenous	53, 56	Rabbit	#P07948	4067

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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.

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.

Species predicted to react based on 100% sequence homology

Rat

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

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).

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, 831-8.
6. Chan, V.W. et al. (1997) *Immunity* 7, 69-81.
7. Hibbs, M.L. et al. (1995) *Cell* 83, 301-11.
8. Seo, S. et al. (2001) *J Immunol* 166, 3710-6.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse

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