## #2731 Store at -20C

## Phospho-Lyn (Tyr507) Antibody



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Applications: Reactivity: Sensitivity: MW (kDa): Source: **UniProt ID:** Entrez-Gene Id: WR н м Endogenous 53, 56 Rabbit #P07948 4067 **Product Usage** Application Dilution Information 1:1000 Western Blotting Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA and 50% glycerol. Store at -**Storage** 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.
- Ren, C.L. et al. (1994) J. Exp. Med. 179, 673-680.
   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** 

**WB:** Western Blotting

**Cross-Reactivity Key** 

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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**Limited Uses** 

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