

**Phospho-HS1 (Tyr397) Antibody**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	80	Rabbit	#P14317	3059

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:50

**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-HS1 (Tyr397) Antibody detects the endogenous level of HS1 protein when phosphorylated at Tyr397.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr397 of human HS1. Antibodies are purified using peptide affinity chromatography

**Background**

HS1 (HCLS1, LckBP1, p75) is a protein kinase substrate that is expressed only in tissues and cells of hematopoietic origin (1,2). HS1 contains four cortactin repeats and a single SH3 domain (2). This intracellular protein is phosphorylated following immune receptor activation, which promotes recruitment of HS1 to the immune synapse (3-5). Phosphorylation of HS1 is required to regulate actin dynamics and provide docking sites for many other signaling molecules, such as Vav1 and PLCγ1 (6). HS1 also plays an important role in platelet activation (7). Tyr397 of HS1 protein is rapidly phosphorylated by Syk and/or Lyn kinases following immune receptor stimulation and thrombin-mediated platelet stimulation. This phosphorylation is an important step in cytoskeletal rearrangement and signaling complex formation (6-10).

**Background References**

1. Kitamura, D. et al. (1989) *Nucleic Acids Res* 17, 9367-79.
2. Kitamura, D. et al. (1995) *Biochem Biophys Res Commun* 208, 1137-46.
3. Suzuki, H. et al. (1997) *J Immunol* 159, 5881-8.
4. Hata, D. et al. (1994) *Immunol Lett* 40, 65-71.
5. Yamanashi, Y. et al. (1993) *Proc Natl Acad Sci USA* 90, 3631-5.
6. Gomez, T.S. et al. (2006) *Immunity* 24, 741-52.
7. Kahner, B.N. et al. (2007) *Blood* 110, 2449-56.
8. Yamanashi, Y. et al. (1997) *J Exp Med* 185, 1387-92.
9. Hao, J.J. et al. (2004) *J Biol Chem* 279, 33413-20.
10. Brunati, A.M. et al. (2005) *J Biol Chem* 280, 21029-35.

**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 **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human

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