Revision 1

Store at -20C

#4503

HS1 Antibody

Cell Signaling TECHNOLOGY®

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

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

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	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

HS1 Antibody detects endogenous levels of total HS1 protein. This antibody does not recognize mouse and rat HS1 proteins. HS1 has a calculated size of 54 kDa, but has an apparent molecular weight of 80 kDa on SDS-PAGE gels.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro310 of human HS1. Antibodies are purified by 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).

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.

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 **IP:** Immunoprecipitation

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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