Revision 13

Phospho-HS1 (Tyr378/397) (D12C1) XP® Rabbit mAb (PE Conjugate)

#11880 Store at +4C

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP	H	Endogenous	Rabbit IgG	#P14317	3059

Product Usage Information

Application	Dilution
Flow Cytometry (Fixed/Permeabilized)	1:50

Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibodies. Protect from light. Do not freeze.

Specificity/Sensitivity

Phospho-HS1 (Tyr378/397) (D12C1) XP® Rabbit mAb (PE Conjugate) recognizes endogenous levels of HS1 protein only when phosphorylated at Tyr378 or Tyr397.

Species predicted to react based on 100% sequence homology

Mouse, Rat

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr405 of mouse HS1 protein. This site corresponds to Tyr397 of human HS1 protein.

Description

This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-HS1 (Tyr378/397) (D12C1) XP® Rabbit mAb #8714.

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).
HS1 is rapidly phosphorylated at Tyr397 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

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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.
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Species Reactivity

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

Applications Key

FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human

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