

# Phospho-HS1 (Tyr397) (F12) rabbit mAb

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## #2396

Store at: -20°C

**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications	Detection	Clonality	Isotype
Flow Cytometry, WB	Anti-Rabbit IgG	Monoclonal	Rabbit IgGk

**Format:** Unconjugated

**Cross Reactivity:** Predicted to work with mouse, rat and other homologues.

**Formulation:** 1X PBS, 0.02% NaN<sub>3</sub>, 50% Glycerol, 0.1% BSA

**Preparation:** Protein A+G

**Reactivity:** Human, Mouse

### Recommended

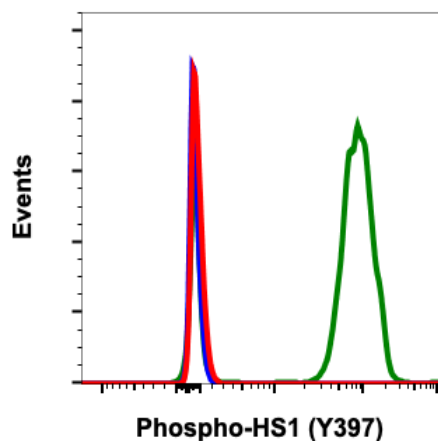
**Usage:** 1µg/mL ? 0.001µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.

**Immunogen:** A synthetic phospho-peptide corresponding to residues surrounding Tyr397 of human phospho HS1

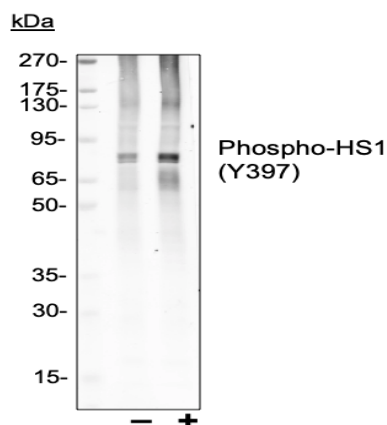
**Description:** HS1 is expressed in lymphoid and hematopoietic cells, and is heavily post-translationally modified. HS1 deficient mouse models have demonstrated the protein's role in receptor-mediated apoptosis and proliferation. HS1 is phosphorylated at Tyr378 and Tyr397 by the kinase Syk, providing a high-affinity binding site for SH2 domains from the Src family. Following this interaction, HS1 is then phosphorylated at Tyr222 by c-Fgr, Lyn, and Fyn kinases. HS1 plays an important role in T cell signaling, where HS1 phosphorylation recruits and activates Vav1 at the immune synapse. As a homolog of the actin binding protein cortactin, HS1 has been shown to mediate neutrophil chemotaxis through phosphorylation of tyrosines 222, 378, and 397.

### References:

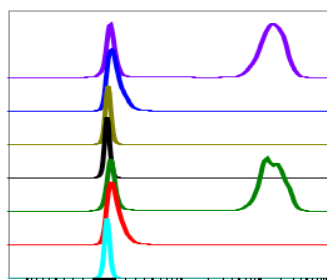
Brunati AM, Donella-Deana A, James P, Quadroni M, Contri A, Marin O, and Pinna LA. (1999) Journal of Biological Chemistry. 274:7557-7564.  
Cavnar PJ, Mogen K, Berthier E, Beebe DJ, and Huttenlocher A. (2012) Journal of Biological Chemistry. 287: 25466-25477.



Flow cytometric analysis of Ramos cells secondary antibody only negative control (blue) or untreated (red) or treated with pervanadate (green) using Phospho-HS1 (Tyr397) antibody HS1Y397-F12 at 0.01 $\mu$ g/mL. Cat. #2396.

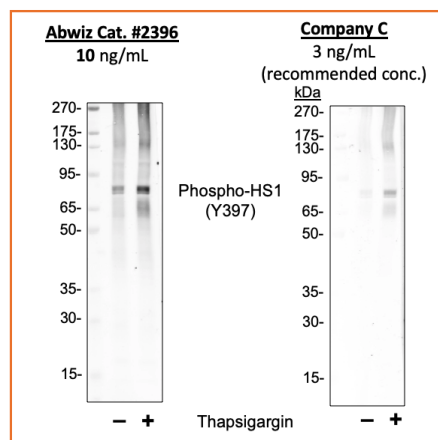


Western blot analysis of Ramos cell extract, untreated or treated with 300 nM Thapsigargin for 30 min using HS1 (Tyr397) antibody HS1Y397-F12 at 0.01  $\mu$ g/mL. Cat. #2396.

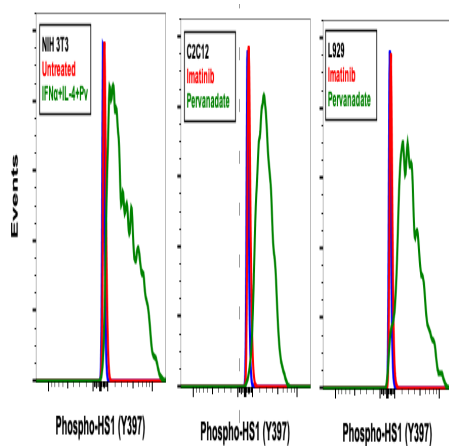


Peptide blocking flow cytometric analysis of Ramos cells secondary antibody only negative control (light blue) or untreated (red) or treated with pervanadate (green) or untreated and blocked with phospho-peptide (black) or treated and blocked with phospho peptide (gold) or untreated and blocked with non-phospho peptide (dark blue) or treated and blocked with non-phospho peptide (purple) using Phospho-HS1 (Tyr397) antibody HS1Y397-F12 at 0.01 $\mu$ g/mL. Cat. #2396.

IgG	Treatment	Peptide Block	Median : BL1-A
F12	Pv	Non-phos.	117301
F12	Ctrl	Non-phos.	863
F12	Pv	Phospho.	355
F12	Ctrl	Phospho.	268
F12	Pv	-	115459
F12	Ctrl	-	856
Z' only	Ctrl	-	253



Western blot analysis of Ramos cell extract untreated or treated with 300 nM thapsigargin for 30 min using 10 ng/mL Phospho-HS1 (Tyr397) antibody HS1Y397-F12 at 0.01 $\mu$ g/mL. Cat. #2396 or Company C antibody at 3 ng/mL (manufacturer's recommended concentration) developed using the same exposure.



Flow cytometric analysis of mouse cells secondary antibody only negative control (blue) or control (red) or stimulated (green) using Phospho-HS1 (Tyr397) antibody HS1Y397-F12 at 0.01µg/mL. Cat. #2396.