

# Slingshot-1L Phospho-Regulation Antibody Sampler Kit

Catalog # **SK6410**

## Kit Summary:

The Slingshot-1L (SSH1L) phospho-regulation antibody sampler kit can be used to detect the level of phosphorylation of SSH1L (Ser-978) relative to the total expression level of SSH1L. The kit also includes peptides for antibody blocking experiments and a secondary reagent for antibody detection.

## Background:

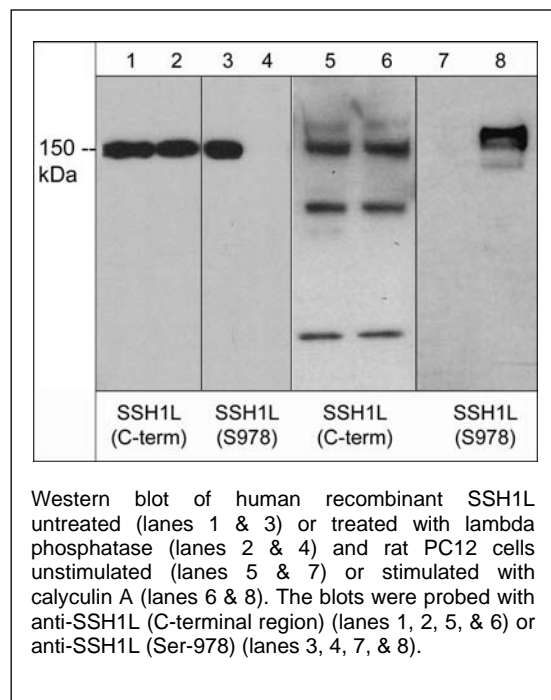
Members of the ADF/cofilin (AC) family are actin-severing proteins that regulate actin remodeling during cell motility. Regulation of cofilin activity can occur through serine phosphorylation and dephosphorylation. Activation of cofilin kinases, LIMK1 or LIMK2, leads to phosphorylation of cofilin at serine 3. This phosphorylation disrupts cofilin binding to actin *in vitro* and *in vivo*. Multiple phosphatases, Slingshot, PP1, PP2A, PP2B, and chronophin can dephosphorylate Ser-3 and activate actin binding. In mammals, the Slingshot family includes SSH1L, SSH2L, and SSH3L. SSH1L and SSH2L mRNAs are widely expressed, while SSH3L has high expression in epithelial tissues. SSH1L can associate with F-actin and may be the major phosphatase regulating cofilin activity. Disruption of SSH1L expression using RNA interference impairs directional cell migration. Phosphorylation of SSH1L at Ser-937 and Ser-978 by PKD leads to association with 14-3-3, sequestration of the phosphatase to the cytoplasm, and reduces cell migration. Thus, Slingshot phosphatases may be critical for regulating cytoskeletal protein activity and cell motility.

## Background References:

Niwa, R. et al. (2002) *Cell* 108:233.  
Nagata-Ohashi, K. et al. (2004) *J Cell Biol.* 165(4):465.  
Peterburs, P. et al. (2009) *Cancer Res.* 69(14):5634.

## Product References (SP1711) :

Kim, J.S. et al. (2009) *Mol Biol Cell.* 20(11):2650. (WB: human HeLa, siRNA)  
Eiseler, T. et al. (2009) *Nat Cell Biol.* 11(5):545. (WB, IP, ICC: human HeLa cells)



## Kit Components:

Catalog#	Description	Type	Size	Applications	Species Reactivity	MW (kDa)
SP1711	Slingshot-1L (C-terminal region)	Rabbit pAb	50 µl	WB, E, IHC	H, R, M	150
SP3901	Slingshot-1L (Ser-978), phospho-specific	Rabbit pAb	50 µl	WB, E	H, R, M	150
SX1715	Slingshot-1L (C-terminal region)	Peptide	50µg	AB, E		
SX3905	phospho-Slinsgshot-1L (Ser-978)	Peptide	50µg	AB, E		
RS3251	Anti-Rabbit Ig Light-Chain Specific:HRP	Mouse mAb	100 µl	WB, E		

Applications: WB = Western blot, E = ELISA, IHC = immunohistochemistry, AB = Antibody Blocking. Species: H = Human, R = Rat, M = Mouse

## Buffers and Storage:

Rabbit polyclonal, affinity-purified antibodies are each supplied in phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Mouse monoclonal, affinity-purified secondary antibody is supplied in phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA. Store at -20°C. Stable for 1 year.

Blocking Peptides are supplied in phosphate-buffered saline and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

**FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.**

www.ecmbiosciences.com  
telephone: 859-879-2075  
toll-free: 1-800-859-8202  
info@ecmbiosciences.com

**ECMBiosciences**