10320 Camino Santa Fe, Suite G
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Anti-Slingshot-1L (Ser-978), Phosphospecific Antibody

Catalog # AN1958

Specification

Anti-Slingshot-1L (Ser-978), Phosphospecific Antibody - Product Information

Application	**WB**
Primary Accession	Q8WYL5
Reactivity	**Bovine, Chicken**
Host	**Rabbit**
Clonality	**Rabbit Polyclonal**
Isotype	**IgG**
Calculated MW	**115511**

Anti-Slingshot-1L (Ser-978), Phosphospecific Antibody - Additional Information

Gene ID	**54434**

Other Names
SSH1L

Dilution
WB~~1:1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Anti-Slingshot-1L (Ser-978), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-Slingshot-1L (Ser-978), Phosphospecific Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Slingshot-1L (Ser-978), Phosphospecific Antibody - Images

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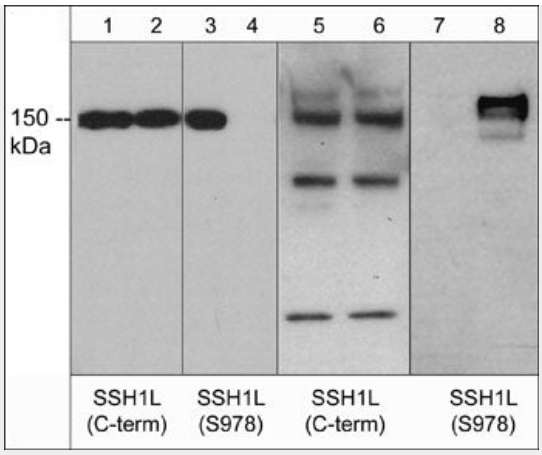
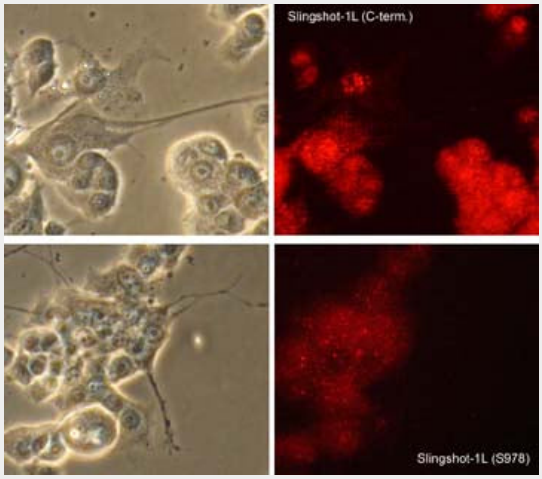


Western blot of human recombinant SSH1L untreated (lanes 1 & 3) or treated with lambda phosphatase (lanes 2 & 4) and rat PC12 cells unstimulated (lanes 5 & 7) or stimulated with calyculin A (lanes 6 & 8). The blots were probed with anti-SSH1L (C-term.) (lanes 1, 2, 5, & 6) or anti-SSH1L (Ser-978) (lanes 3, 4, 7, & 8).



Immunocytochemical labeling of Slingshot-1L in rat PC12 cells differentiated with NGF. The cells were labeled with rabbit polyclonal anti-SSH1L (C-term.) and anti-SSH1L (Ser-978) antibodies, then detected using appropriate secondary antibody conjugated to Cy3 (Right panel). Phase image of corresponding PC12 cells (Left panel).

Anti-Slingshot-1L (Ser-978), Phosphospecific Antibody - 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.