

## Anti-Profilin (Ser-138), Phosphospecific Antibody Catalog # AN1921

### Specification

#### Anti-Profilin (Ser-138), Phosphospecific Antibody - Product Information

Application	WB, IHC
Primary Accession	<a href="#">P07737</a>
Reactivity	Bovine
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	15054

#### Anti-Profilin (Ser-138), Phosphospecific Antibody - Additional Information

Gene ID 5216

##### Other Names

Epididymis Li184a Profilin PFN1 PFN2

##### 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-Profilin (Ser-138), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

##### Shipping

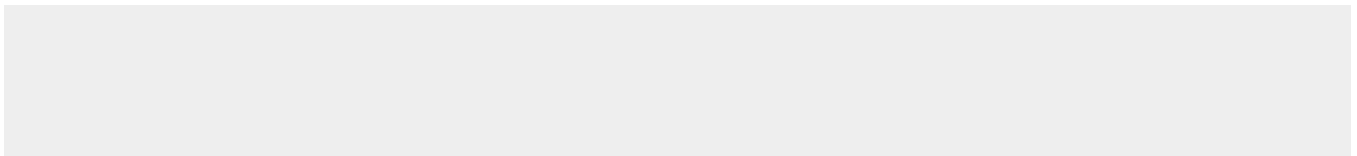
Blue Ice

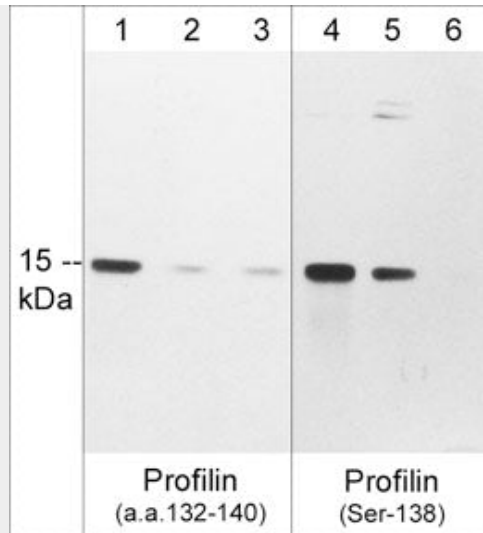
#### Anti-Profilin (Ser-138), Phosphospecific Antibody - Protocols

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

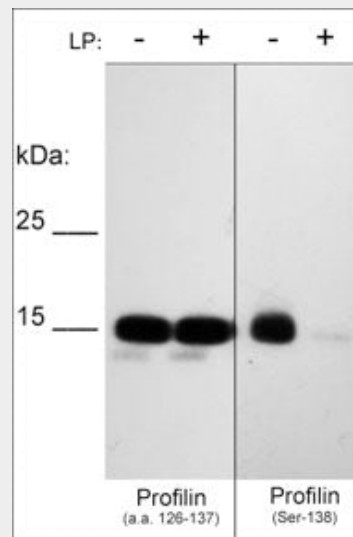
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Anti-Profilin (Ser-138), Phosphospecific Antibody - Images





Western blot of Jurkat stimulated with calyculin A (100 nM) for 30 min (lanes 1-6). The blots were probed with anti-Profilin (a.a. 132-140) (lanes 1-3) or anti-Profilin (Ser-138) phospho-specific (lanes 4-6). Both antibodies were used in the absence (lanes 1 & 4) or presence of unphosphorylated Profilin (Ser-138; PX4825) (lanes 2 & 5) or phospho-Profilin (Ser-138; PX4795) (lanes 3 & 6) blocking peptides.



Western blot of human recombinant Profilin-1 phosphorylated in vitro with PKC $\alpha$  kinase then untreated (-) or treated with lambda phosphatase (+). The blots were probed with anti-Profilin (a.a. 126-137) (left panel) or anti-Profilin (Ser-138) phospho-specific (right panel) antibodies at 1:1000.

### Anti-Profilin (Ser-138), Phosphospecific Antibody - Background

Profilins are small actin-binding proteins that have functions in cell motility, cytokinesis, gene transcription, endocytosis and neuronal plasticity. Four profilin isoforms have been identified in mammals. Profilin-1 (PFN1) and profilin-2a (PFN2a) isoforms are highly conserved in structure, but PFN1 is ubiquitously expressed while PFN2a is preferentially enriched in brain. In addition, there are two testis-specific profilins, PFN3 and PFN4, that significantly differ in primary sequence and function compared to PFN1 and PFN2a. Profilin is phosphorylated at both tyrosine and serine residues in vivo. Tyr-129 is phosphorylated in response to VEGF-A stimulation, and this promotes profilin actin binding and polymerization. Tyr-129 phosphorylation may be important for angiogenesis induced by injuries. Ser-138 is phosphorylated by ROCK and dephosphorylated by

PP1. This serine phosphorylation inhibits G-actin binding, as well as decreases profilin's aggregation suppressor activity by inhibiting binding to huntingtin. Thus, Tyr-129 phosphorylation may activate while Ser-138 phosphorylation may inhibit profilin activity.