

## Anti-Profilin (C-terminal region) Antibody Catalog # AN1922

### Specification

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#### Anti-Profilin (C-terminal region) Antibody - Product Information

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

#### Anti-Profilin (C-terminal region) 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 (C-terminal region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

##### Shipping

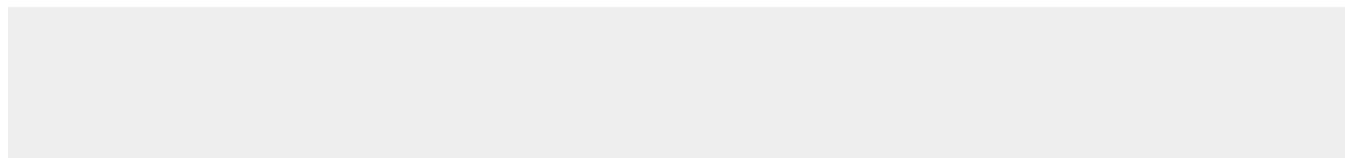
Blue Ice

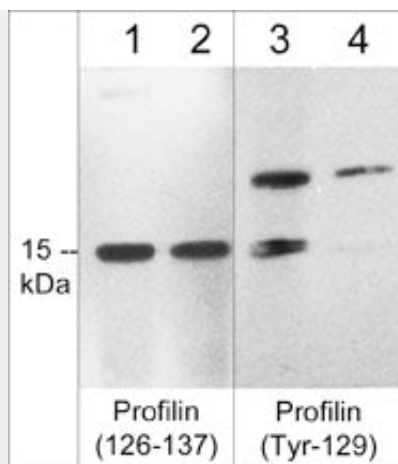
#### Anti-Profilin (C-terminal region) Antibody - Protocols

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

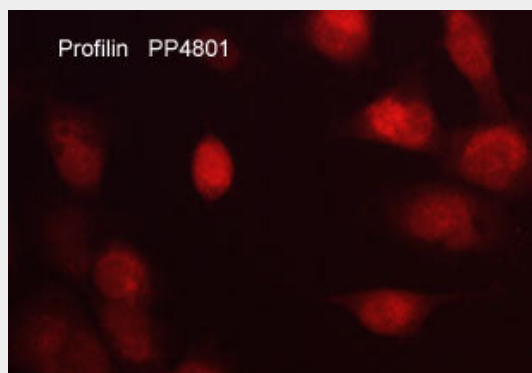
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Anti-Profilin (C-terminal region) Antibody - Images





Western blot of HUVEC stimulated with Pervanadate (1 mM) for 30 min (lanes 1-4). The blots were treated with alkaline phosphatase to remove phosphorylation (lanes 2 & 4), then probed with anti-Profilin (a.a. 126-137) (lanes 1 & 2) or anti-Profilin (Tyr-129) phospho-specific (lanes 3 & 4). The antibodies detect profilin at 15 kDa. In lanes 3 & 4, the antibody also detects an unknown 20 kDa protein.



Immunocytochemical labeling of Profilin in aldehyde-fixed and NP-40 permeabilized human NCI-H1915 lung carcinoma cells. The cells were labeled with rabbit polyclonal anti-Profilin (PP4801) antibody. The antibody was detected using appropriate secondary antibody conjugated to DyLight® 594.

### Anti-Profilin (C-terminal region) 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.