

Anti-Profilin (C-terminal region) Antibody

Catalog # AN1922

Product Information

Application	WB, ICC
Primary Accession	<u>P07737</u>
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	15054

Additional Information

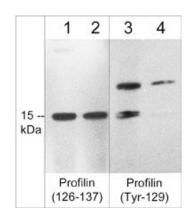
Gene ID Other Names	5216 Epididymis Li184a Profilin PFN1 PFN2
Dilution	WB~~1:1000 ICC~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Profilin (C-terminal region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

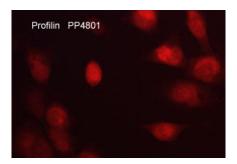
Profilins are small actin-binding proteins that have functions in cell motility, cytokinesis, gene transcription, endocytosis and neuronal plasticity. Four profilin isoforms have been identified in mammals. Profilin-1 (PFN1) and profilin-2a (PFN2a) isoforms are highly conserved in structure, but PFN1 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.

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 (AN1922) antibody. The antibody was detected using appropriate secondary antibody conjugated to DyLight® 594.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.