

Rabbit Profilin Polyclonal Antibody | anti-PFN1 antibody

Profilin (a.a. 132-140) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA71698	Rabbit	Human, Rat, Mouse	Immunocytochemistry, ELISA, Western Blot

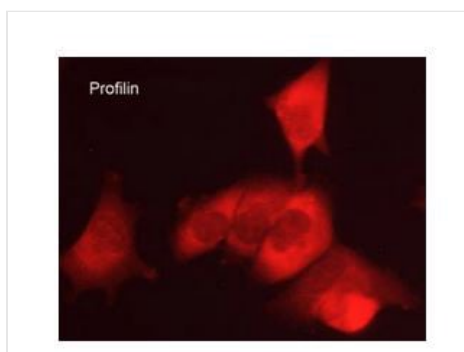
PRODUCT SYNONYMS

Profilin; Polyclonal Antibody; Profilin (a.a. 132-140) Antibody; Profilin (a.a. 132-140); Profilin Ser Pan; anti-PFN1 antibody

PRODUCT SPECIFICATIONS

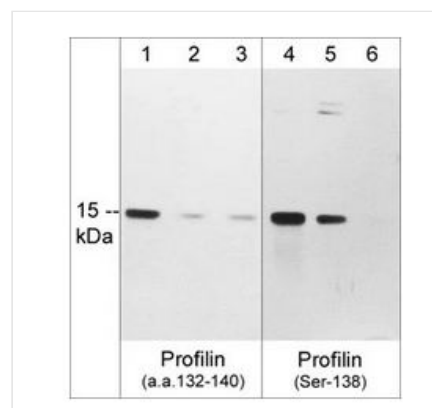
Host	Rabbit
Reactivity	Human, Rat, Mouse
Clonality	Polyclonal
Specificity	This antibody was affinity purified using Profilin (a.a. 132-140) peptide (without carrier). The antibody detects a 15kDa band corresponding to the apparent molecular mass of Profilin-1 in human Jurkat and A431 cells, as well as rat PC12 cells.
Form/Format	Rabbit polyclonal, affinity-purified antibody is supplied in 100ul phosphate-buffered saline, 50% glycerol, 1mg/ml BSA, and 0.05% sodium azide.
Applicable Applications for anti-PFN1 antibody	ICC (Immunocytochemistry), ELISA, WB (Western Blot)
Immunogen	Profilin synthetic peptide (coupled to carrier protein) that includes amino acids 132 to 140 in human Profilin-1. This sequence is well conserved in rat and mouse Profilin-1, has some homology to Profilin-2a and Profilin-2b, and low homology to Profilin-3 and Profilin-4.
Preparation and Storage	Store at -20 degree C. Stable for 1 year.

IMAGES



ICC (Immunocytochemistry)

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 (PP4821) antibody. The antibody was detected using appropriate secondary antibody conjugated to DyLight 594.



WB (Western Blot)

Western blot of Jurkat stimulated with calyculin A (100nM) 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.

ADDITIONAL INFORMATION

Related Product Information for anti-PFN1 antibody	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.
References	Shao, J. & Diamond, M.I. (2012) PLoS ONE 7(3): e32802. Fan, Y. et al. (2012) Nat Cell Biol. 14(10):1046. Shao, J. et al. (2008) Mol Cell Biol. 28(17):5196.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4826898
NCBI GeneID	5216
NCBI Accession #	NP_005013.1
NCBI GenBank Nucleotide #	NM_005022.3
UniProt Accession #	P07737; Q53Y44
Molecular Weight	140
NCBI Official Full Name	profilin-1
NCBI Official Synonym Full Names	profilin 1
NCBI Official Symbol	PFN1
NCBI Official Synonym Symbols	ALS18
NCBI Protein Information	profilin-1; profilin I; epididymis tissue protein Li 184a
UniProt Protein Name	Profilin-1
UniProt Gene Name	PFN1
UniProt Entry Name	PROF1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.