



Profilin Antibody

Cat. No.: 36-354



Ψ Specifications

HOST SPECIES:	Rabbit
SPECIES REACTIVITY:	Bovine, Human, Mouse, Pig, Rat
IMMUNOGEN:	Human full-length profilin.
TESTED APPLICATIONS:	ICC, IHC, WB
APPLICATIONS:	ELISA: (direct or indirect: 1:2,000-1:5,000). Western blot: (1:2,000-1:5,000 using ECL. Suggested blocking and dilution buffer is PBST with 0.05% Tween 20 and 5% skim milk. Suggested incubation time is 1 hour at room temperature). Optimal conditions should be determined individually for each application.
SPECIFICITY:	Recognizes human, mouse, rat, pig, bovine and marsupial profilin.

Ψ Properties

PURIFICATION:	Antigen affinity purified.
CLONALITY:	Polyclonal
CONJUGATE:	Unconjugated
PHYSICAL STATE:	Liquid
BUFFER:	Liquid. In PBS containing 1mg/ml BSA and 0.02% sodium azide.

CONCENTRATION:	100 ug/ml
STORAGE CONDITIONS:	Stable for at least 1 year after receipt when stored at -20 °C.

Ψ Additional Info

OFFICIAL SYMBOL:	PFN1
ALTERNATE NAMES:	PFN1
ACCESSION NO.:	NP_005013
PROTEIN GI NO.:	4826898
GENE ID:	5216
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

Ψ Background and References

BACKGROUND:	<p>Profilin (PFN1) is a ubiquitous small (12-15kDa) phosphoinositide and poly-L-proline binding protein that plays a role in signal transduction pathways and actin filament dynamics. There are two mammalian profilins with similar biochemical properties. Whereas profilin I appears to be highly expressed in most tissues except for skeletal muscle, profilin II is predominantly expressed in brain and at lower levels also in skeletal muscle, uterus and kidney. Profilin is a mainly cytosolic protein with higher concentrations in dynamic membrane areas like the leading edge and ruffling membranes. Profilin binding to PIP2 interferes with PIP2 hydrolysis by soluble phospholipase C-gamma, an inhibition that can be overcome by tyrosine phosphorylation of PLC-gamma. Besides actin monomer sequestration and stimulation of actin nucleotide exchange, profilin can also promote cellular actin filament growth. Profilin is involved in the actin dependent intracellular motility of cytopathogenic bacteria, the regulation of cell adhesion and possibly also in linking the actin cytoskeleton and endocytosis. Profilin has been found to associate with defined complexes containing proteins such as Arp2/3 or the Rho/Rac pathways constituents ROCK-II and HEM2/NAP1. Defects in PFN1 are the cause of amyotrophic lateral sclerosis 18 (ALS18).</p>
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