SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-Profilin 1 antibody

Catalog Number: SL1556R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Profilin 1
Immunogen:	KLH conjugated synthetic peptide derived from human Profilin 1: 41-140/140
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 Flow-Cyt=3ug/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human, Mouse, Rat, (predicted: Dog, Cow, Horse)
Predicted MW.:	15kDa
Subcellular Location:	cytoplasmic
Background:	Profilin 1 is a ubiquitous actin monomer-binding protein involved in actin polymerization in response to extracellular signals. Three profilin genes have been identified: profilin 1, 2, and 3. Profilin 1 is the most ubiquitous and abundant, and is highly expressed throughout development and adulthood inmost tissues including brain. Profilin 2 is the neuronal specific isoform and profilin 3 is a testis specific isoform. Profilins of eukaryotic cells are small (12-15 kDa) cytoplasmic proteins that bind to actin monomers, polyphosphoinositides and polymers of L-proline. Profilins were shown to be important for normal cell proliferation, differentiation and motility. Deletion of profilin 1 gene leads to an embryonic lethal phenotype. **Function:** Binds to actin and affects the structure of the cytoskeleton. At high

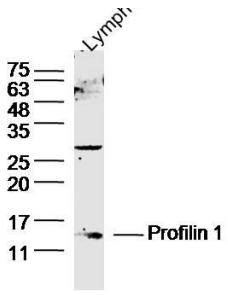
Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

	concentrations, profilin prevents the polymerization of actin, whereas it enhances it at low concentrations. By binding to PIP2, it inhibits the formation of IP3 and DG. Inhibits androgen receptor (AR) and HTT aggregation and binding of G-actin is essential for its inhibition of AR. **Subunit:** Occurs in many kinds of cells as a complex with monomeric actin in a 1:1 ratio. Found in a complex with XPO6, Ran, ACTB and PFN1. Interacts with VASP. Interacts with HTT. **Subcellular Location:** Cytoplasm, cytoskeleton. **Tissue Specificity:** Expressed in epididymis (at protein level). **Post-translational modifications:** Phosphorylation at Ser-138 reduces its affinity for G-actin and blocks its interaction with HTT, reducing its ability to inhibit androgen receptor (AR) and HTT aggregation. DISEASE: Amyotrophic lateral sclerosis 18 (ALS18) [MIM:614808]: A neurodegenerative disorder affecting upper motor neurons in the brain and lower motor neurons in the brain stem and spinal cord, resulting in fatal paralysis. Sensory abnormalities are absent. The pathologic hallmarks of the disease include pallor of the corticospinal tract due to loss of motor neurons, presence of ubiquitin-positive inclusions within surviving motor neurons, and deposition of pathologic aggregates. The etiology of amyotrophic lateral sclerosis is likely to be multifactorial, involving both genetic and environmental factors. The disease is inherited in 5-10% of the cases. Note=The disease is caused by mutations affecting the gene represented in this entry. **Similarity:** Belongs to the profilin family. **Database links:** **Entrez Gene:** 5216 Human **Entrez Gene:** 18643 Mouse **Entrez Gene:** 64303 Rat Omim: 176610 Human **SwissProt:** P07737 Human **SwissProt:** P62962 Mouse **SwissProt:** P62963 Rat **Unigene:** 494691 Human **Unigene:** 2647 Mouse **Unigene:** 1152 Rat Profilin is a low molecular weight actinBinding protein, In addition to binding to actin, profilin also acts as a control center in the complex network of intermolecular interactions。

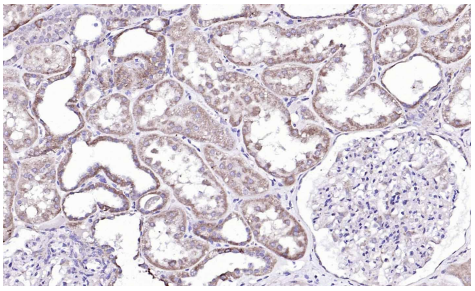
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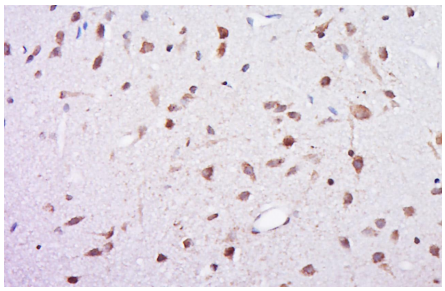
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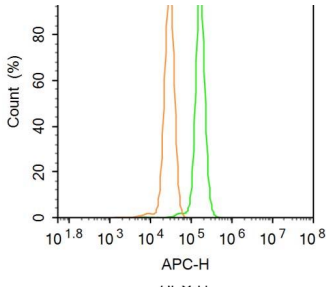
Sample: Lymph node (Mouse) Lysate at 30 ug
Primary: Anti- Profilin 1 (SL1556R) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/10000 dilution
Predicted band size: 15 kD
Observed band size: 15 kD



Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Profilin 1) Polyclonal Antibody, Unconjugated (SL1556R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Tissue/cell: Rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min;
Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37∩ for 20 min;
Incubation: Anti-PFN1 Polyclonal Antibody, Unconjugated(SL1556R) 1:500, overnight at 4∑C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: A431.
Primary Antibody (green line): Rabbit Anti-Profilin 1 antibody (SL1556R)
Dilution: 1µg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody: Goat anti-rabbit IgG-AF647
Dilution: 1µg /test.
Protocol
The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

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