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# Phospho-Cofilin(Ser3) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3751a

## Product Information

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| **Application** | DB, E |
| **Primary Accession** | P23528 |
| **Other Accession** | NP_005498.1 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB28431 |
| **Calculated MW** | 18502 |

## Additional Information

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| **Gene ID** | 1072 |
| **Other Names** | Cofilin-1, 18 kDa phosphoprotein, p18, Cofilin, non-muscle isoform, CFL1, CFL |
| **Target/Specificity** | This Cofilin Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Ser3 of human Cofilin. |
| **Dilution** | DB~~1:500 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | Phospho-Cofilin(Ser3) Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | CFL1 |
| **Synonyms** | CFL |
| **Function** | Binds to F-actin and exhibits pH-sensitive F-actin depolymerizing activity (PubMed:11812157, PubMed:33670794). In conjunction with the subcortical maternal complex (SCMC), plays an essential role for zygotes to progress |

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| | beyond the first embryonic cell divisions via regulation of actin dynamics (PubMed:15580268). Required for the centralization of the mitotic spindle and symmetric division of zygotes (By similarity). Plays a role in the regulation of cell morphology and cytoskeletal organization in epithelial cells (PubMed:21834987). Required for the up-regulation of atypical chemokine receptor ACKR2 from endosomal compartment to cell membrane, increasing its efficiency in chemokine uptake and degradation (PubMed:23633677). Required for neural tube morphogenesis and neural crest cell migration (By similarity). |
| **Cellular Location** | Nucleus matrix. Cytoplasm, cytoskeleton. Cell projection, ruffle membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, lamellipodium membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, lamellipodium. Cell projection, growth cone {ECO:0000250\|UniProtKB:P18760}. Cell projection, axon {ECO:0000250\|UniProtKB:P18760}. Note=Colocalizes with the actin cytoskeleton in membrane ruffles and lamellipodia. Detected at the cleavage furrow and contractile ring during cytokinesis. Almost completely in nucleus in cells exposed to heat shock or 10% dimethyl sulfoxide |
| **Tissue Location** | Widely distributed in various tissues. |

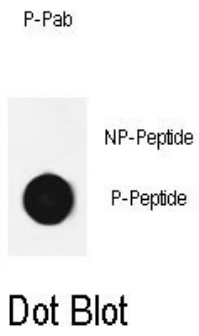
## Background

Cofilin is a widely distributed intracellular actin-modulating protein that binds and depolymerizes filamentous F-actin and inhibits the polymerization of monomeric G-actin in a pH-dependent manner. It is involved in the translocation of actin-cofilin complex from cytoplasm to nucleus.

## References


Klemke, M., et al. EMBO J. 29(17):2915-2929(2010)
Castro, M.A., et al. Cancer 116(15):3645-3655(2010)
Garg, P., et al. J. Biol. Chem. 285(29):22676-22688(2010)
Martins-de-Souza, D., et al. J Psychiatr Res (2010) In press :
Zhang, Y., et al. J. Int. Med. Res. 38(3):1042-1048(2010)


## Images




Dot blot analysis of anti-Phospho-Cofilin (Ser3) antibody Phospho-specific Pab (Cat. #AP3751a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.

## Citations

- Konjac ceramide (kCer) regulates keratinocyte migration by Sema3A-like repulsion mechanism.

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