

**Cofilin Antibody (S3)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AE1009a****Specification**

---

**Cofilin Antibody (S3) - Product Information**

Application	<b>WB, IHC</b>
Primary Accession	<a href="#">P23528</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Concentration	<b>1mg/ml</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>18502</b>

**Cofilin Antibody (S3) - Additional Information****Gene ID** 1072**Other Names**

Cofilin-1, 18 kDa phosphoprotein, p18, Cofilin, non-muscle isoform, CFL1, CFL

**Target/Specificity**

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

**Dilution**

WB~~1:500~1:1000

IHC~~1:50~1:100

**Format**

affinity Purified IgG, in PBS, 0.02% sodium azide and 50% glycerol.

**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**

Cofilin Antibody (S3) is for research use only and not for use in diagnostic or therapeutic procedures.

**Cofilin Antibody (S3) - Protein Information****Name** CFL1**Synonyms** CFL

**Function**

Binds to F-actin and exhibits pH-sensitive F-actin depolymerizing activity (PubMed:<a href="http://www.uniprot.org/citations/11812157" target="\_blank">11812157</a>). In conjunction with the subcortical maternal complex (SCMC), plays an essential role for zygotes to progress beyond the first embryonic cell divisions via regulation of actin dynamics (PubMed:<a href="http://www.uniprot.org/citations/15580268" target="\_blank">15580268</a>). 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:<a href="http://www.uniprot.org/citations/21834987" target="\_blank">21834987</a>). 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:<a href="http://www.uniprot.org/citations/23633677" target="\_blank">23633677</a>). 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 {ECO:0000250|UniProtKB:P18760}. 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**

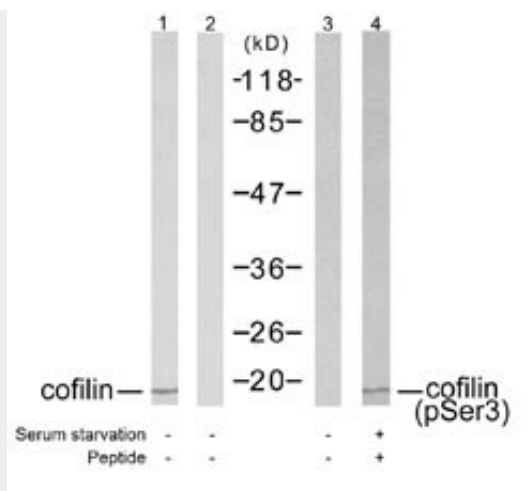
Widely distributed in various tissues.

**Cofilin Antibody (S3) - Protocols**

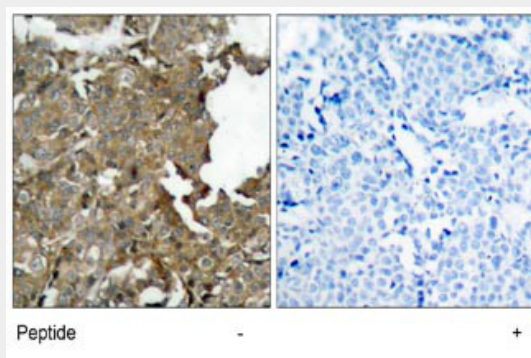
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Cofilin Antibody (S3) - Images**



Western blot analysis of extracts from COLO 205 cells using Cofilin Antibody (S3) (#AE1009a, Lane 1 and 2) and Phospho-Cofilin-S3 Antibody (#AE1009b, Lane 3 and 4).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Cofilin Antibody (S3) (#AE1009a).

### Cofilin Antibody (S3) - 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.

### Cofilin Antibody (S3) - References

- Actin-depolymerizing factor cofilin-1 is necessary in maintaining mature podocyte architecture. Garg P, et al. *J Biol Chem*, 2010 Jul 16. PMID 20472933.
- Proteome analysis of the thalamus and cerebrospinal fluid reveals glycolysis dysfunction and potential biomarkers candidates for schizophrenia. Martins-de-Souza D, et al. *J Psychiatr Res*, 2010 May 14. PMID 20471030.
- Sex-specific proteome differences in the anterior cingulate cortex of schizophrenia. Martins-de-Souza D, et al. *J Psychiatr Res*, 2010 Apr 8. PMID 20381070.
- HUNK suppresses metastasis of basal type breast cancers by disrupting the interaction between PP2A and cofilin-1. Quintela-Fandino M, et al. *Proc Natl Acad Sci U S A*, 2010 Feb 9. PMID 20133759.
- Tyrosine phosphorylation of cofilin at Y68 by v-Src leads to its degradation through ubiquitin-proteasome pathway. Yoo Y, et al. *Oncogene*, 2010 Jan 14. PMID 19802004.