



Rabbit Anti-Phospho-Cofilin (Tyr140) antibody

SL5258R

Product Name:	Phospho-Cofilin (Tyr140)
Chinese Name:	磷酸化丝切蛋白抗体
Alias:	Cofilin (Phospho-Tyr140); Cofilin (Phospho-Y140); 18 kDa phosphoprotein; CFL 1; CFL; CFL1; Cofilin 1; Cofilin 1 non muscle; Cofilin non muscle isoform; p18; COF1 HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1ug/TestIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	18kDa
Cellular localization:	The nucleuscytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human Cofilin around the phosphorylation site of Tyr140:NC(p-Y)EE
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The protein encoded by this gene can polymerize and depolymerize F-actin and G-actin in a pH-dependent manner. Increased phosphorylation of this protein by LIM kinase aids in Rho-induced reorganization of the actin cytoskeleton. 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.

Function:

Binds to F-actin and exhibits pH-sensitive F-actin depolymerizing activity. Regulates actin cytoskeleton dynamics. Important for normal progress through mitosis and normal cytokinesis. Plays a role in the regulation of cell morphology and cytoskeletal organization.

Subunit:

Can bind G- and F-actin in a 1:1 ratio of cofilin to actin. It is a major component of intranuclear and cytoplasmic actin rods.

Subcellular Location:

Nucleus matrix. Cytoplasm, cytoskeleton. Cell projection, ruffle membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, lamellipodium membrane; Peripheral membrane protein; Cytoplasmic side. 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 Specificity:

Widely distributed in various tissues.

Post-translational modifications:

Inactivated by phosphorylation on Ser-3. Phosphorylated on Ser-3 in resting cells. Dephosphorylated by PDXP/chronophin; this restores its activity in promoting actin filament depolymerization. The phosphorylation of Ser-24 may prevent recognition of the nuclear localization signal

Similarity:

Belongs to the actin-binding proteins ADF family.
Contains 1 ADF-H domain.

SWISS:

P23528

Gene ID:

1072

Database links:

[Entrez Gene: 1072](#)Human

[Entrez Gene: 12631](#)Mouse

[Entrez Gene: 29271](#)Rat

[Omim: 601442](#)Human

[SwissProt: P23528](#)Human

[SwissProt: P18760](#)Mouse

[SwissProt: P45592](#)Rat

[Unigene: 170622](#)Human

[Unigene: 329655](#)Mouse

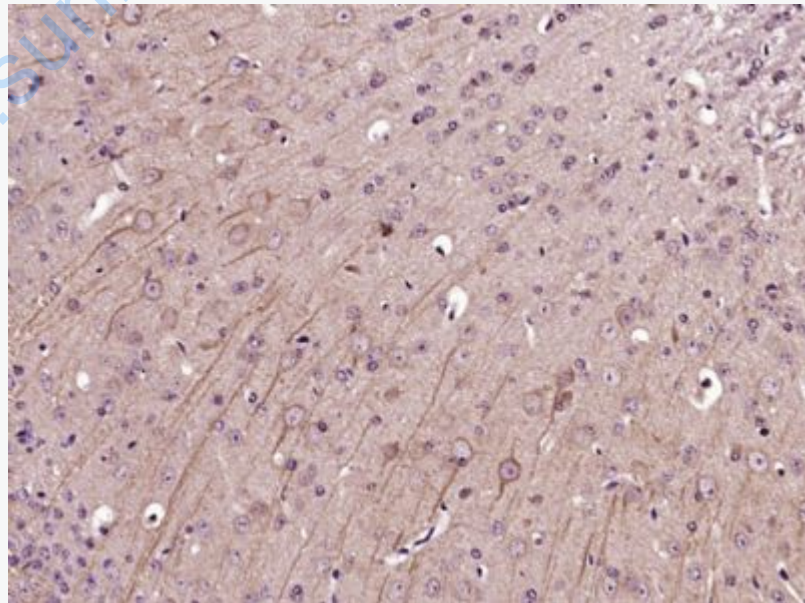
[Unigene: 11675](#)Rat

Important Note:

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

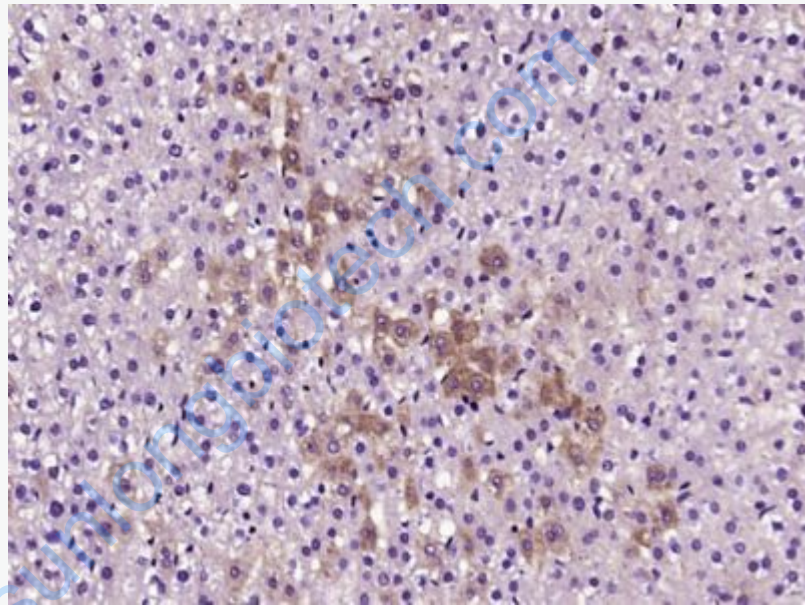
丝切蛋白(cofilin)是Cytoskeleton塑形的重要调节因素,其主要功能是分解肌动蛋白微丝和增加肌动蛋白单体从肌动蛋白微丝的末端解离的速度,从而促进肌动蛋白微丝的循环,是目前为止已发现的肌动蛋白Binding protein家族中唯一能够改变肌动蛋白微丝扭曲结构的蛋白.

Picture:

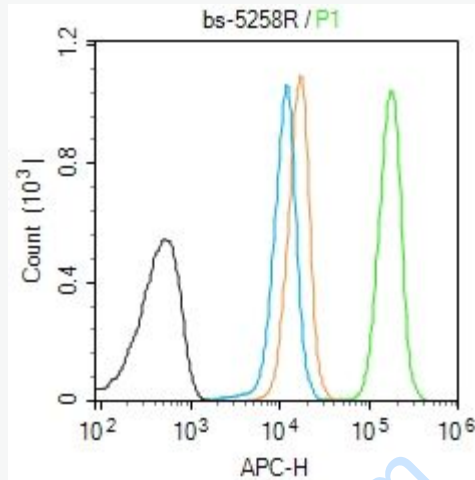


Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by

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 (Phospho-Cofilin (Tyr140)) Polyclonal Antibody, Unconjugated (SL5258R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat liver); 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 (Phospho-Cofilin (Tyr140)) Polyclonal Antibody, Unconjugated (SL5258R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control (Black line): Molt4 (Black).

Primary Antibody (green line): Rabbit Anti-Phospho-Cofilin (Tyr140) antibody (SL5258R) (SL5258R)

Dilution: $1\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647

Dilution: $1\mu\text{g} / \text{test}$.

Protocol

The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with 90% ice-cold methanol 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.