

Cofilin Activation Antibody Sampler Kit

Cat# AK0139

Upon receipt, store at -20°C. Avoid freeze/thaw cycles.

PRODUCT DESCRIPTION

Cofilin and actin-depolymerization factor (ADF) are members of a family of essential conserved small actin-binding proteins that play pivotal roles in cytokinesis, endocytosis, embryonic development, stress response, and tissue regeneration. In response to stimuli, cofilin promotes the regeneration of actin filaments by severing preexisting filaments. The severing activity of cofilin is inhibited by LIMK or TESK phosphorylation at Ser3 of cofilin. Phosphorylation at Ser3 also regulates cofilin translocation from the nucleus to the cytoplasm. LIM kinases (LIMK1 and LIMK2) are serine/threonine kinases that have two zinc finger motifs, known as LIM motifs, in their amino-terminal regulatory domains. LIM kinases are involved in actin cytoskeletal regulation downstream of Rho-family GTPases, PAKs, and ROCK. PAK1 and ROCK phosphorylate LIMK1 or LIMK2 at the conserved Thr508 or Thr505 residues in the activation loop, increasing LIMK activity. Activated LIM kinases inhibit the actin depolymerization activity of cofilin by phosphorylation at the amino-terminal Ser3 residue of cofilin. Testis-specific kinase 1 (TESK1) is a LIMK-related protein kinase originally identified to be highly expressed in testes and subsequently shown to be expressed in a wide variety of tissues and cell types. TESK1 phosphorylates the actin severing protein cofilin at Ser3, inactivating cofilin and thus regulating the organization of the actin cytoskeleton. Integrin signaling activates TESK1 activity and leads to stress fiber formation and cell spreading. TESK1 is involved in regulation of ERK signaling through its interaction with Spry2 and regulation of cell spreading through its interaction with the focal adhesion protein actopaxin/ α -parvin. Chronophin (CIN, PDXP) is a haloacid dehalogenase phosphatase that dephosphorylates cofilin. Alteration of CIN activity through overexpression of either the wildtype or phosphatase-inactive mutant CIN interferes with actin dynamics, cell morphology and cytokinesis. ROCK (Rho-associated kinase), a family o

PRODUCT INCLUDES

Cat No.	Product name	Quantity	Applications	Reactivity	Host
A340486	CFL1 Polyclonal Antibody	20 μ L	WB, IHC, IF, ELISA	Human, Mouse, Rat	Rabbit
A340210	Phospho-CFL1 (Ser3) Polyclonal Antibody	20 μ L	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit

A340585	LIMK1/2 Polyclonal Antibody	20μL	WB, IHC, ELISA	Human, Mouse, Rat, Monkey	Rabbit
A340664	ROCK1 Polyclonal Antibody	20μL	WB, IHC, ELISA	Human, Mouse, Rat, Monkey	Rabbit
A1013s	Goat Anti-Rabbit IgG (H+L) (peroxidase/HRP conjugated)	120μL	WB, ELISA	Rabbit	Goat

PRODUCT USE LIMITATION

These products are intended for research use only.