

Actin Nucleation and Polymerization Antibody Sampler Kit

Cat# AK0106

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

PRODUCT DESCRIPTION

Actin nucleation is the process of forming new actin filaments and is necessary to stimulate actin polymerization. Actin polymerization is vital for cell motility, cell division, and cell adhesion. Rac and Cdc42, members of the Rho-GTPase family, play key roles in actin dynamics, membrane trafficking, transcriptional regulation, cell growth, and development. GTP binding stimulates the activity of Rac/Cdc42, and the hydrolysis of GTP to GDP through the intrinsic GTPase activity or Rac/Cdc42, rendering it inactive. GTP hydrolysis is aided by GTPase activating proteins (GAPs), while exchange of GDP for GTP is facilitated by guanine nucleotide exchange factors (GEFs). Another level of regulation is achieved through binding of RhoGDI, a guanine dissociation inhibitor, which retains Rho family GTPases, including Rac and Cdc42, in their inactive GDP-bound state. WAVE-2 is widely distributed, while WAVE-1 and WAVE-3 are strongly expressed in the brain. The highly conserved ARP2/3 complex is an important actin nucleation protein complex consisting of ARP2, ARP3, and ARPC1-5. The ARP2/3 complex promotes branching of existing actin filaments and formation of daughter filaments following activation by nucleation-promoting factors, such as WASP/WAVE or cortactin. Profilins are conserved actin binding proteins that affect the rate of actin polymerization by binding actin monomers and promoting exchange of ADP for ATP. Profilins bind to proteins involved in the regulation of actin dynamics including paladin, dynamin-I, VASP, and N-WASP.

PRODUCT INCLUDES

Cat No.	Product name	Quantity	Applications	Reactivity	Host
A340148	CDC42 Polyclonal Antibody	20µL	WB, ELISA	Human, Mouse, Rat	Rabbit
A340702	WASF2 Polyclonal Antibody	20µL	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
A340120	PFN1 Polyclonal Antibody	20µL	WB, ELISA	Human, Mouse, Rat	Rabbit
A340436	ACTR3 Polyclonal Antibody	20µL	WB, ELISA	Human, Mouse, Rat	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.