ARP2 (Actin Like Protein 2, Actin-related Protein 2, ACTR2)

Catalog number

A3574-91

Supplier

United States Biological

Actin nucleation, the formation of new actin filaments from existing filaments, affects actin filament structure during cell motility, division and intracellular trafficking. An important actin nucleation protein complex is the highly conserved ARP2/3 complex, consisting of ARP2, ARP3 and ARPC1-5. The ARP2/3 complex promotes branching of an existing actin filament and formation of a daughter filament following activation by nucleation-promoting factors, such as WASP/WAVE or cortactin (1). The formation of podosomes, small cellular projections that degrade the extracellular matrix, is enhanced by ARP2/3 complex action. ARP2/3 competes with caldesmon, an actin binding protein shown to negatively affect podosome formation (2). The ARP2/3 complex (along with N-WASP) regulates nuclear actin filament nucleation and controls actin polymerization during transcription (3).

Applications

Suitable for use in Western Blot. Other applications have not been tested.

Recommended Dilutions

Western Blot: 1:1000, incubate membrane with diluted antibody in 5% BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.
Optimal dilutions to be determined by the researcher.

Storage and Stability

May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

Immunogen

Synthetic peptide corresponding to the sequence of human ARP2.

Formulation

Supplied as a liquid in 10mM sodium HEPES, pH 7.5, 150mM sodium chloride, 0.1mg/ml BSA, 50% glycerol.

Purity

Serum

Specificity

Recognizes endogenous levels of total human ARP2 protein. Species crossreactivity: mouse, rat, monkey, hamster and D. melanogaster.

Product Type

Pab

Source

human

Isotype

IgG

Grade

Serum

Applications

WB

Crossreactivity

Dr Hm Hu Mk Mo Rt

Storage

-20°C

MW

44

Reference

1. Goley, E.D. and Welch, M.D. (2006) Nat. Rev. Mol. Cell Biol. 7, 713-726. 2. Morita, T. et al. (2007) J. Biol. Chem. 282, 8454-8463. 3. Yoo, Y. et al. (2007) J. Biol. Chem. 282, 7616-7623.