Revision 1

#5614 Store at -20C

ARP2 (D85D5) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk B	Endogenous	44	Rabbit IgG	#P61160	10097

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

ARP2 (D85D5) Rabbit mAb recognizes endogenous levels of total ARP2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human ARP2 protein.

Background

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). Along with N-WASP, the ARP2/3 complex regulates nuclear actin filament nucleation and controls actin polymerization during transcription (3).

Background References

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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