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DIAPH3 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP16587b

Specification

DIAPH3 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q9NSV4

DIAPH3 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 81624

Other Names
Protein diaphanous homolog 3, Diaphanous-related formin-3, DRF3, MDia2, DIAPH3, DIAP3

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DIAPH3 Antibody (C-term) Blocking Peptide - Protein Information

Name DIAPH3

Synonyms DIAP3

Function
Actin nucleation and elongation factor required for the assembly of F-actin structures, such as actin cables and stress fibers. Required for cytokinesis, stress fiber formation and transcriptional activation of the serum response factor. Binds to GTP-bound form of Rho and to profilin: acts in a Rho-dependent manner to recruit profilin to the membrane, where it promotes actin polymerization. DFR proteins couple Rho and Src tyrosine kinase during signaling and the regulation of actin dynamics. Also acts as an actin nucleation and elongation factor in the nucleus by promoting nuclear actin polymerization inside the nucleus to drive serum-dependent SRF-MRTFA activity.

Cellular Location
Cytoplasm. Nucleus {ECO:0000250|UniProtKB:Q9Z207} Note=During mitosis, co-localizes with the actin-rich cleavage furrow and with the microtubule-rich central spindle during cytokinesis (PubMed:18755006, PubMed:19457867). Shuttles between the cytoplasm and the nucleus (By similarity). {ECO:0000250|UniProtKB:Q9Z207, ECO:0000269|PubMed:18755006, ECO:0000269|PubMed:19457867}

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DIAPH3 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

DIAPH3 Antibody (C-term) Blocking Peptide - Images

DIAPH3 Antibody (C-term) Blocking Peptide - Background

DIAPH3 binds to GTP-bound form of Rho and to profilin. Acts in a Rho-dependent manner to recruit profilin to the membrane, where it promotes actin polymerization. It is required for cytokinesis, stress fiber formation, and transcriptional activation of the serum response factor. DFR proteins couple Rho and Src tyrosine kinase during signaling and the regulation of actin dynamics (By similarity).

DIAPH3 Antibody (C-term) Blocking Peptide - References

DeWard, A.D., et al. J. Biol. Chem. 284(30):20061-20069(2009)Block, J., et al. J Microsc 231(3):506-517(2008)Beli, P., et al. Nat. Cell Biol. 10(7):849-857(2008)Yang, C., et al. PLoS Biol. 5 (11), E317 (2007) :Gupton, S.L., et al. J. Cell. Sci. 120 (PT 19), 3475-3487 (2007) :