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Anti-mDia3 (C-terminus) Antibody
Catalog # AN1743

Specification

Anti-mDia3 (C-terminus) Antibody - Product Information

Primary Accession	Q9Z207
Reactivity	**Bovine**
Host	**Rabbit**
Clonality	**Rabbit Polyclonal**
Isotype	**IgG**
Calculated MW	**133686**

Anti-mDia3 (C-terminus) Antibody - Additional Information

Gene ID **56419**

Other Names
DIA3; DIAP2; DIAPH2; diaphanous formin-2; DRF2; POF2

Target/Specificity
Formins include several families of proteins that regulate actin cytoskeletal dynamics via two conserved formin homology domains, FH1 and FH2. Through cooperation of FH1 and FH2, formins construct actin-based structures comprising linear, unbranched filaments that are used in stress fibers, actin cables, microspikes, and contractile rings. A subgroup of the formins is the diaphanous (Dia) family, which includes mDia1 (Diap1), mDia2 (Diap3), and mDia3 (Diap2). mDia3 is activated by Cdc42 and regulates the attachment of microtubules to the kinetochore during mitosis. Aurora B kinase phosphorylates Ser-196 and Thr-882 in vitro, and phosphorylation of Ser-196 increases during mitosis in vivo. A multisite mutant mDia3 with nonphosphorylatable T66A, S196A, S880A and T882A leads to misalignment of chromosomes at the metaphase plate. Thus, phosphorylation may be an important regulator of mDia3 activity during mitosis.

Format
Antigen Affinity Purified

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Anti-mDia3 (C-terminus) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-mDia3 (C-terminus) Antibody - Protocols

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

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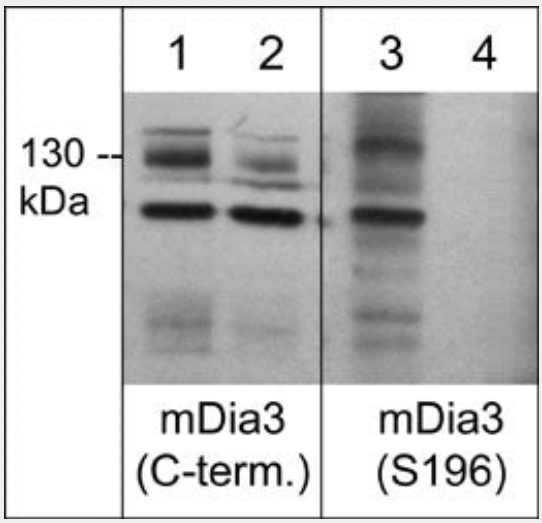
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-mDia3 (C-terminus) Antibody - Images



Western blot analysis of mDia3 expression in human Jurkat cells treated with Calyculin A (100 nM) (lanes 1-4). The blots were treated with lambda phosphatase (lanes 2 & 4), then probed with rabbit polyclonal anti-mDia3 (C-terminus; DP4511) (lanes 1 & 2) and anti-phospho-mDia3 (Ser-196; DP4521) (lanes 3 & 4).

Anti-mDia3 (C-terminus) Antibody - Background

Formins include several families of proteins that regulate actin cytoskeletal dynamics via two conserved formin homology domains, FH1 and FH2. Through cooperation of FH1 and FH2, formins construct actin-based structures comprising linear, unbranched filaments that are used in stress fibers, actin cables, microspikes, and contractile rings. A subgroup of the formins is the diaphanous (Dia) family, which includes mDia1 (Diap1), mDia2 (Diap3), and mDia3 (Diap2). mDia3 is activated by Cdc42 and regulates the attachment of microtubules to the kinetochore during mitosis. Aurora B kinase phosphorylates Ser-196 and Thr-882 in vitro, and phosphorylation of Ser-196 increases during mitosis in vivo. A multisite mutant mDia3 with nonphosphorylatable T66A, S196A, S880A and T882A leads to misalignment of chromosomes at the metaphase plate. Thus, phosphorylation may be an important regulator of mDia3 activity during mitosis.