10320 Camino Santa Fe, Suite G
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Anti-mDia2 (Thr-1061), Phosphospecific Antibody

Catalog # AN1742

Specification

Anti-mDia2 (Thr-1061), Phosphospecific Antibody - Product Information

Primary Accession	Q9NSV4
Reactivity	**Bovine, Chicken, Drosophila, C.Elegans**
Host	**Rabbit**
Clonality	**Rabbit Polyclonal**
Isotype	**IgG**
Calculated MW	**136926**

Anti-mDia2 (Thr-1061), Phosphospecific Antibody - Additional Information

Gene ID	**81624**

Other Names
Diap3, Dia2, Drf3, formin

Target/Specificity
Formins include several families of proteins that regulate actin cytoskeletal dynamics via two conserved formin homology domains, FH1 and FH2. The FH1 region contains poly-proline stretches that promote interactions with profilin. The FH2 domain, located C-terminally to the FH1 domain, is highly conserved in formin proteins and possesses actin nucleation and polymerization activities. 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). The mDia2 protein has been implicated in cell migration and cytokinesis. This Dia protein can nucleate actin polymerization, as well as bind and stabilize microtubules. mDia2 may also have functions in the nucleus, since it is continually shuttled between the cytoplasm and nucleus

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-mDia2 (Thr-1061), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-mDia2 (Thr-1061), Phosphospecific Antibody - Protocols

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

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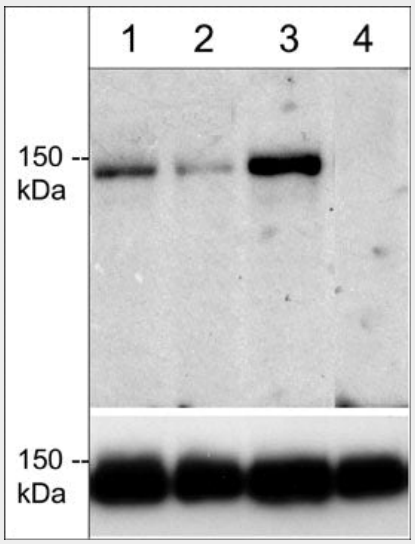
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-mDia2 (Thr-1061), Phosphospecific Antibody - Images



Western blot analysis of COS-7 cells expressing flag-tagged mDia2 (lanes 1-3) or mDia2 mutant (T1061A) (lane 4). The cells were untreated (lane 1) or treated with calyculin A (lanes 2 & 3). The blot was treated with alkaline phosphatase (lane 2), then probed with anti-mDia2 (Thr-1061) (upper blot) or anti-flag antibody (lower blot). (Image provided by Dr. Christopher Mack in the Dept. of Pathology at UNC Chapel Hill).

Anti-mDia2 (Thr-1061), Phosphospecific Antibody - Background

Formins include several families of proteins that regulate actin cytoskeletal dynamics via two conserved formin homology domains, FH1 and FH2. The FH1 region contains poly-proline stretches that promote interactions with profilin. The FH2 domain, located C-terminally to the FH1 domain, is highly conserved in formin proteins and possesses actin nucleation and polymerization activities. 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). The mDia2 protein has been implicated in cell migration and cytokinesis. This Dia protein can nucleate actin polymerization, as well as bind and stabilize microtubules. mDia2 may also have functions in the nucleus, since it is continually shuttled between the cytoplasm and nucleus