

Datasheet for ABIN968212  
**anti-DIAPH1 antibody (AA 41-153)**[2 Images](#)[3 Publications](#)[Go to Product page](#)

## Overview

Quantity:	50 µg
Target:	DIAPH1
Binding Specificity:	AA 41-153
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This DIAPH1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

## Product Details

Immunogen:	Mouse p140mDia aa. 41-153
Clone:	51-mDia1
Isotype:	IgG1
Cross-Reactivity:	Rat (Rattus), Human, Dog (Canine)
Characteristics:	<ol style="list-style-type: none"><li>1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.</li><li>2. Please refer to us for technical protocols.</li><li>3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.</li><li>4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.</li></ol>

## Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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## Target Details

Target:	DIAPH1
Alternative Name:	p140mDia ( <a href="#">DIAPH1 Products</a> )
Background:	<p>GTPases like Ras, Rho, cdc42Hs, and Rac modulate a multitude of cellular functions like cytoskeletal architecture, growth, motility, and gene expression. The activity of the GTP-binding proteins is regulated by factors that accelerate GTP-binding (GAPs) and proteins that enhance the rate of GTP hydrolysis. mDia1, also known as p140mDia and Drf1, is the mammalian homologue of Drosophila's diaphanous, a protein essential for cytokinesis. The 1255 amino acid mDia1 is widely expressed, with a Rho binding domain at the NH2-terminal region, a central polyproline region, and an FH2 domain. This protein also shares homology with the yeast Bn1p essential for budding and the mouse formin necessary for proper limb development. mDia1 binds to GTP-Rho and to the actin-binding protein profilin-all three proteins are co-localized at the lamellipodia in cultured cells. The overexpression of mDia1 promoted the formation of actin filaments, implicating this protein in cell motility events regulated by Rho. mDia1 was also found consistently mutated in familial deafness.</p> <p>Synonyms: p140mDia, Drf1</p>
Molecular Weight:	140 kDa
Pathways:	<a href="#">Sensory Perception of Sound</a>

## Application Details

Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

## Handling

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C

Storage Comment: Store undiluted at -20°C.

## Publications

Product cited in:

Li, Higgs: "The mouse Formin mDia1 is a potent actin nucleation factor regulated by autoinhibition." in: **Current biology : CB**, Vol. 13, Issue 15, pp. 1335-40, (2003) ([PubMed](#)).

Pennisi: "The architecture of hearing." in: **Science (New York, N.Y.)**, Vol. 278, Issue 5341, pp. 1223-4, (1997) ([PubMed](#)).

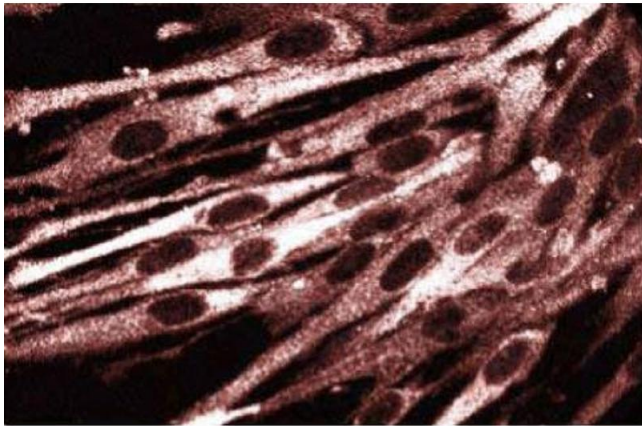
Watanabe, Madaule, Reid, Ishizaki, Watanabe, Kakizuka, Saito, Nakao, Jockusch, Narumiya: "p140mDia, a mammalian homolog of Drosophila diaphanous, is a target protein for Rho small GTPase and is a ligand for profilin." in: **The EMBO journal**, Vol. 16, Issue 11, pp. 3044-56, (1997) ([PubMed](#)).

## Images



### Western Blotting

**Image 1.** Western blot analysis of mDia1 on a RSV-3T3 cell lysate. Lane of 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti-mDia1 antibody.



#### Immunofluorescence

**Image 2.** Immunofluorescence staining of FHs cells (Normal human fetal lung fibroblasts, ATCC HTB-157).