



[Go to Product page](#)

Datasheet for ABIN6943002  
**anti-DIAPH1 antibody**

### Overview

Quantity:	100 µL
Target:	DIAPH1
Reactivity:	Human
Host:	Rabbit
Clonality:	Monoclonal
Conjugate:	This DIAPH1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p))

### Product Details

Immunogen:	Recombinant protein corresponding to N-terminal human DIAPH1.
Clone:	1C11
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Purified by Protein A.

### Target Details

Target:	DIAPH1
Alternative Name:	DIAPH1 ( <a href="#">DIAPH1 Products</a> )

## Target Details

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**Background:** Synonyms: Protein diaphanous homolog 1, Diaphanous-related formin-1, DRF1, DIAPH1, DIAP1

Background: Actin nucleation and elongation factor required for the assembly of F-actin structures, such as actin cables and stress fibers. Binds to the barbed end of the actin filament and slows down actin polymerization and depolymerization. Required for cytokinesis, and transcriptional activation of the serum response factor. DFR proteins couple Rho and Src tyrosine kinase during signaling and the regulation of actin dynamics. Functions as a scaffold protein for MAPRE1 and APC to stabilize microtubules and promote cell migration. Has neurite outgrowth promoting activity. Acts in a Rho-dependent manner to recruit PFY1 to the membrane. In hair cells, it may play a role in the regulation of actin polymerization in hair cells. The MEMO1-RHOA-DIAPH1 signaling pathway plays an important role in ERBB2-dependent stabilization of microtubules at the cell cortex. It controls the localization of APC and CLASP2 to the cell membrane, via the regulation of GSK3B activity. In turn, membrane-bound APC allows the localization of the MACF1 to the cell membrane, which is required for microtubule capture and stabilization. Plays a role in the regulation of cell morphology and cytoskeletal organization. Required in the control of cell shape. Plays a role in brain development. 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.

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Gene ID: 1729

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UniProt: [O60610](#)

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Pathways: [Sensory Perception of Sound](#)

## Application Details

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**Application Notes:** WB 1:300-5000  
IHC-P 1:200-400  
IF(IHC-P) 1:50-200  
IF(ICC) 1:50-200

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**Restrictions:** For Research Use only

## Handling

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**Format:** Liquid

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**Concentration:** 1 µg/µL

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**Buffer:** Aqueous buffered solution containing 1xTBS (pH 7.4), 1 % BSA, 40 %Glycerol and 0.05 % Sodium Azide.

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## Handling

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Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20°C for 12 months.
Expiry Date:	12 months