

**Anti-DIAPH1 Rabbit Monoclonal Antibody**  
**Catalog # ABO15463****Specification**

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**Anti-DIAPH1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, IHC, IF, ICC
Primary Accession	<a href="#">O60610</a>
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-DIAPH1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.

**Anti-DIAPH1 Rabbit Monoclonal Antibody - Additional Information**

**Gene ID** 1729

**Other Names**

Protein diaphanous homolog 1, Diaphanous-related formin-1, DRF1, DIAPH1, DIAP1

**Calculated MW**

150 kDa KDa

**Application Details**

WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human DIAPH1

**Purification**

Affinity-chromatography

**Storage**

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

**Anti-DIAPH1 Rabbit Monoclonal Antibody - Protein Information**

**Name** DIAPH1

## Synonyms DIAP1

### Function

Actin nucleation and elongation factor required for the assembly of F-actin structures, such as actin cables and stress fibers (By similarity). Binds to the barbed end of the actin filament and slows down actin polymerization and depolymerization (By similarity). Required for cytokinesis, and transcriptional activation of the serum response factor (By similarity). DFR proteins couple Rho and Src tyrosine kinase during signaling and the regulation of actin dynamics (By similarity). Functions as a scaffold protein for MAPRE1 and APC to stabilize microtubules and promote cell migration (By similarity). Has neurite outgrowth promoting activity. Acts in a Rho-dependent manner to recruit PFY1 to the membrane (By similarity). In hair cells, it may play a role in the regulation of actin polymerization in hair cells (PubMed:<a href="http://www.uniprot.org/citations/20937854" target="\_blank">20937854</a>, PubMed:<a href="http://www.uniprot.org/citations/21834987" target="\_blank">21834987</a>, PubMed:<a href="http://www.uniprot.org/citations/26912466" target="\_blank">26912466</a>). The MEMO1-RHOA- DIAPH1 signaling pathway plays an important role in ERBB2-dependent stabilization of microtubules at the cell cortex (PubMed:<a href="http://www.uniprot.org/citations/20937854" target="\_blank">20937854</a>, PubMed:<a href="http://www.uniprot.org/citations/21834987" target="\_blank">21834987</a>). It controls the localization of APC and CLASP2 to the cell membrane, via the regulation of GSK3B activity (PubMed:<a href="http://www.uniprot.org/citations/20937854" target="\_blank">20937854</a>, PubMed:<a href="http://www.uniprot.org/citations/21834987" target="\_blank">21834987</a>). In turn, membrane-bound APC allows the localization of the MACF1 to the cell membrane, which is required for microtubule capture and stabilization (PubMed:<a href="http://www.uniprot.org/citations/20937854" target="\_blank">20937854</a>, PubMed:<a href="http://www.uniprot.org/citations/21834987" target="\_blank">21834987</a>). Plays a role in the regulation of cell morphology and cytoskeletal organization. Required in the control of cell shape (PubMed:<a href="http://www.uniprot.org/citations/20937854" target="\_blank">20937854</a>, PubMed:<a href="http://www.uniprot.org/citations/21834987" target="\_blank">21834987</a>). Plays a role in brain development (PubMed:<a href="http://www.uniprot.org/citations/24781755" target="\_blank">24781755</a>). 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 (By similarity).

### Cellular Location

Cell membrane {ECO:0000250|UniProtKB:O08808}. Cell projection, ruffle membrane {ECO:0000250|UniProtKB:O08808} Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle. Cytoplasm {ECO:0000250|UniProtKB:O08808}. Nucleus {ECO:0000250|UniProtKB:O08808} Note=Membrane ruffles, especially at the tip of ruffles, of motile cells. {ECO:0000250|UniProtKB:O08808}

### Tissue Location

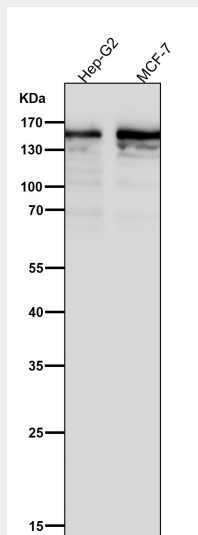
Expressed in brain, heart, placenta, lung, kidney, pancreas, liver, skeletal muscle and cochlea. Expressed in platelets (PubMed:26912466).

## Anti-DIAPH1 Rabbit Monoclonal Antibody - Protocols

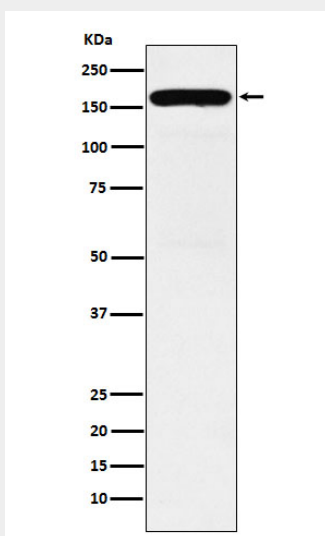
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-DIAPH1 Rabbit Monoclonal Antibody - Images**

All lanes use the Antibody at 1:5K dilution for 1 hour at room temperature.



Western blot analysis of DIAPH1 expression in K562 cell lysate.