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#5486

## Diap1 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

<b>Applications:</b> W	<b>Reactivity:</b> H Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 150	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #O60610	<b>Entrez-Gene Id:</b> 1729
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### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

### Specificity/Sensitivity

Diap1 Antibody recognizes endogenous levels of total Diap1 protein.

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human Diap1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

### Background

Formins are a family of large multidomain actin nucleation/polymerization proteins characterized by their catalytic FH2 domains. The mammalian diaphanous-related formin (mDia/diap) subfamily, including mDia1/diap1, mDia2/diap3 and mDia3/diap2, are effectors of Rho family small GTPases. In response to Rho, mDia/diap proteins are involved in the regulation of multiple cell functions including cytoskeletal dynamics, migration, adhesion, polarity and cell shape (reviewed in 1,2). mDia1/diap1 is activated by GTP-bound Rho, leading to Rho-associated kinase (ROCK)-dependent stress fiber formation (3,4). Rho activation of mDia1 has also been shown to regulate serum response factor (SRF)-dependent transcription (5), and has been implicated in human cancer phenotypes such as ras-mediated transformation, metastasis and invasion (reviewed in 6). mDia3/diap2, activated by the Rho family small GTPase cdc42, regulates the attachment of microtubules to the kinetochore during mitosis in mammalian cells (7). Rho-dependent activation of mDia2/diap3 is important in assembly of the contractile ring during cytokinesis (8,9).

### Background References

- Schönichen, A. and Geyer, M. (2010) *Biochim Biophys Acta* 1803, 152-63.
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- Watanabe, N. et al. (1999) *Nat Cell Biol* 1, 136-43.
- Ishizaki, T. et al. (2001) *Nat Cell Biol* 3, 8-14.
- Copeland, J.W. and Treisman, R. (2002) *Mol Biol Cell* 13, 4088-99.
- Narumiya, S. et al. (2009) *Cancer Metastasis Rev* 28, 65-76.
- Yasuda, S. et al. (2004) *Nature* 428, 767-71.
- Watanabe, S. et al. (2010) *Mol Biol Cell* 21, 3193-204.
- Watanabe, S. et al. (2008) *Mol Biol Cell* 19, 2328-38.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**W:** Western Blotting

### Cross-Reactivity Key

**H:** Human **Mk:** Monkey

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