

**Anti-FHOD1 Antibody**  
**Catalog # AN1794****Specification**

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**Anti-FHOD1 Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB                     |
| Primary Accession | <a href="#">Q9Y613</a> |
| Host              | Mouse                  |
| Clonality         | Mouse Monoclonal       |
| Isotype           | IgG1                   |
| Calculated MW     | 126551                 |

**Anti-FHOD1 Antibody - Additional Information**

|                    |       |
|--------------------|-------|
| Gene ID            | 29109 |
| <b>Other Names</b> |       |
| FHOS, 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. Several mammalian formins, including mDia1, FRL, and formin homology domain protein 1 (FHOD1) are inhibited through an intramolecular interaction between the C-terminal Dia autoregulatory domain (DAD) and its recognition region at the N-terminus. In FHOD1, this autoinhibitory interaction is disrupted through phosphorylation of Ser-1131, Ser-1137, and Thr-1141 by ROCK. Subsequent FHOD1 activation leads to stress fiber formation. In endothelial cells, thrombin activates this ROCK pathway, leading to FHOD1-mediated stress fiber formation.

**Dilution**

WB~~1:1000

**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-FHOD1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

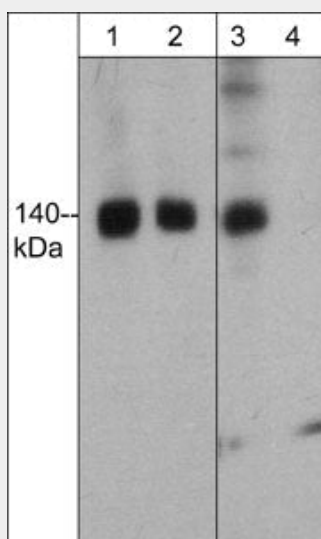
Blue Ice

**Anti-FHOD1 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-FHOD1 Antibody - Images



Western blot of FHOD1 phosphorylation in human K562 cells stimulated with calyculin A (100 nM) for 30 min. (lanes 1 & 3). The blot was then treated with lambda phosphatase (lanes 2 & 4). Blots were probed with mouse monoclonal anti-FHOD1 (lanes 1 & 2) and anti-FHOD1 (Thr-1141), phospho-specific antibody (lanes 3 & 4) .

#### Anti-FHOD1 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. Several mammalian formins, including mDia1, FRL, and formin homology domain protein 1 (FHOD1) are inhibited through an intramolecular interaction between the C-terminal Dia autoregulatory domain (DAD) and its recognition region at the N-terminus. In FHOD1, this autoinhibitory interaction is disrupted through phosphorylation of Ser-1131, Ser-1137, and Thr-1141 by ROCK. Subsequent FHOD1 activation leads to stress fiber formation. In endothelial cells, thrombin activates this ROCK pathway, leading to FHOD1-mediated stress fiber formation.