

Anti-FHOD1 (Thr-1141), Phosphospecific Antibody

Catalog # AN1795

Product Information

Application	WB
Primary Accession	Q9Y613
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	126551

Additional Information

Gene ID	29109
Other Names	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 (Thr-1141), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
-------------	---

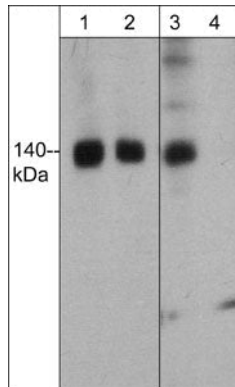
Shipping	Blue Ice
----------	----------

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.

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 polyclonal anti-FHOD1 (lanes 1 & 2) and anti-FHOD1 (Thr-1141), phospho-specific antibody (lanes 3 & 4) .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.