

FMN2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP58745

Specification

FMN2 Polyclonal Antibody - Product Information

Application IHC-P, IHC-F, IF, E

Primary Accession <u>O9NZ56</u>

Reactivity
Host
Clonality
Calculated MW
Rat, Dog, Bovine
Rabbit
Polyclonal
189 KDa

Physical State
Liquid
Immunogen
KLH conjugated synthetic peptide derived

from human FMN2

Epitope Specificity 401-500/1722

Isotype
Purity
affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02%

Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Expressed almost exclusively in the

developing and mature central nervous

system

laG

SIMILARITY Belongs to the formin homology family.

Cappuccino subfamily.Contains 1 FH1 (formin homology 1) domain. Contains 1

Post-translational modifications FH2 (formin homology 2) domain.
Phosphorylated upon DNA damage,

probably by ATM or ATR.

Important Note This product as supplied is intended for

research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

FMN2 is a member or the formin homology family, Cappuccino subfamily. Formin homology (FH) domain proteins play a role in cytoskeletal organization and/or establishment of cell polarity. In mice, FMN2 has been shown to be a maternal effect gene that is expressed in oocytes and is required for progression through metaphase of meiosis I. FMN2 is expressed in the developing and mature central nervous system.

FMN2 Polyclonal Antibody - Additional Information

Gene ID 56776

Other Names Formin-2, FMN2

Dilution



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<span class ="dilution IHC-P">IHC-P~~N/A</span><br \><span class</pre>
="dilution IHC-F">IHC-F~~N/A</span><br \><span class
="dilution IF">IF\sim\sim1:50\sim200</span><br/>or \><span class ="dilution <math>E">E\sim\sim N/A</span>
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Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

FMN2 Polyclonal Antibody - Protein Information

Name FMN2

Function

Actin-binding protein that is involved in actin cytoskeleton assembly and reorganization (PubMed:21730168, PubMed:22330775). Acts as an actin nucleation factor and promotes assembly of actin filaments together with SPIRE1 and SPIRE2 (PubMed: 21730168, PubMed:22330775). Involved in intracellular vesicle transport along actin fibers, providing a novel link between actin cytoskeleton dynamics and intracellular transport (By similarity). Required for asymmetric spindle positioning, asymmetric oocyte division and polar body extrusion during female germ cell meiosis (By similarity). Plays a role in responses to DNA damage, cellular stress and hypoxia by protecting CDKN1A against degradation, and thereby plays a role in stress-induced cell cycle arrest (PubMed:23375502). Also acts in the nucleus: together with SPIRE1 and SPIRE2, promotes assembly of nuclear actin filaments in response to DNA damage in order to facilitate movement of chromatin and repair factors after DNA damage (PubMed: 26287480). Protects cells against apoptosis by protecting CDKN1A against degradation (PubMed: 23375502).

Cellular Location

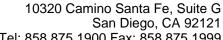
Cytoplasm, cytoskeleton. Cytoplasm, cytosol. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q9|L04}. Nucleus Nucleus, nucleolus. Cell membrane {ECO:0000250|UniProtKB:Q9JL04}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q9JL04}; Cytoplasmic side {ECO:0000250|UniProtKB:Q9JL04}. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:O9IL04}: Peripheral membrane protein {ECO:0000250|UniProtKB:Q9|L04}; Cytoplasmic side {ECO:0000250|UniProtKB:Q9|L04}. Cytoplasm, cell cortex {ECO:0000250|UniProtKB:Q9|L04}. Note=Colocalizes with the actin cytoskeleton (PubMed:20082305). Recruited to the membranes via its interaction with SPIRE1 (By similarity). Detected at the cleavage furrow during asymmetric oocyte division and polar body extrusion (By similarity). Accumulates in the nucleus following DNA damage (PubMed:26287480). {ECO:0000250|UniProtKB:Q9|L04, ECO:0000269|PubMed:20082305, ECO:0000269|PubMed:26287480}

Tissue Location

Expressed almost exclusively in the developing and mature central nervous system.

FMN2 Polyclonal Antibody - Protocols

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

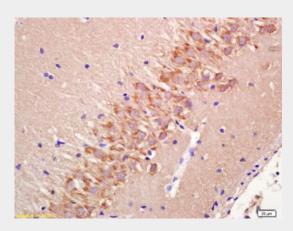


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- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

FMN2 Polyclonal Antibody - Images



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

Incubation: Anti-FMN2 Polyclonal Antibody, Unconjugated(bs-7748R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining