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FMN2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58745

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q9NZ56
Reactivity	Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	180106
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FMN2
Epitope Specificity	401-500/1722
Isotype	IgG
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.
SIMILARITY	Belongs to the formin homology family. Cappuccino subfamily.Contains 1 FH1 (formin homology 1) domain. Contains 1 FH2 (formin homology 2) domain.
Post-translational modifications	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.

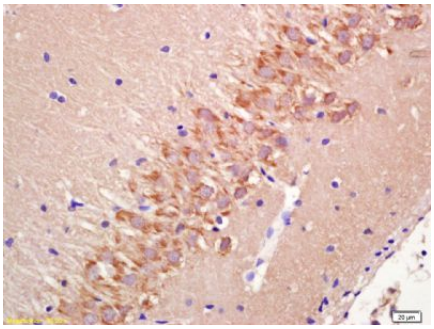
Additional Information

Gene ID	56776
Other Names	Formin-2, FMN2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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.

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:Q9JL04}. 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:Q9JL04}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q9JL04}; Cytoplasmic side {ECO:0000250|UniProtKB:Q9JL04}. Cytoplasm, cell cortex {ECO:0000250|UniProtKB:Q9JL04}. 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:Q9JL04, ECO:0000269|PubMed:20082305, ECO:0000269|PubMed:26287480}
Tissue Location	Expressed almost exclusively in the developing and mature central nervous system.

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℃ for 20 min;
Incubation: Anti-FMN2 Polyclonal Antibody, Unconjugated(AP58745) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining