

EPB49 antibody - middle region

Rabbit Polyclonal Antibody

Catalog # AI14706

Product Information

Application	WB
Primary Accession	Q08495
Other Accession	NM_001978 , NP_001969
Reactivity	Human, Mouse, Rat, Pig, Dog, Guinea Pig, Horse, Bovine
Predicted	Human, Rat, Pig, Dog, Guinea Pig, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	45514

Additional Information

Gene ID	2039
Alias Symbol	DMT, FLJ78462, FLJ98848, EPB49
Other Names	Dematin, Dematin actin-binding protein, Erythrocyte membrane protein band 4.9, DMTN, DMT, EPB49
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-EPB49 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	EPB49 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DMTN
Synonyms	DMT, EPB49
Function	Membrane-cytoskeleton-associated protein with F-actin-binding activity that induces F-actin bundles formation and stabilization. Its F-actin-bundling activity is reversibly regulated upon its phosphorylation by the cAMP-dependent protein kinase A (PKA). Binds to the erythrocyte membrane glucose transporter-1 SLC2A1/GLUT1, and hence stabilizes and attaches the spectrin-actin network to the erythrocytic plasma membrane. Plays a role in maintaining the functional integrity of PKA-activated erythrocyte shape and the membrane mechanical properties. Also plays a role as a modulator of

actin dynamics in fibroblasts; acts as a negative regulator of the RhoA activation pathway. In platelets, functions as a regulator of internal calcium mobilization across the dense tubular system that affects platelet granule secretion pathways and aggregation. Also required for the formation of a diverse set of cell protrusions, such as filopodia and lamellipodia, necessary for platelet cell spreading, motility and migration. Acts as a tumor suppressor and inhibits malignant cell transformation.

Cellular Location

Cytoplasm. Cytoplasm, cytosol. Cytoplasm, perinuclear region. Cytoplasm, cytoskeleton. Cell membrane. Membrane. Endomembrane system. Cell projection. Note=Localized at the spectrin-actin junction of erythrocyte plasma membrane. Localized to intracellular membranes and the cytoskeletal network. Localized at intracellular membrane-bounded organelle compartment in platelets that likely represent the dense tubular network membrane. Detected at the cell membrane and at the parasitophorous vacuole in malaria-infected erythrocytes at late stages of plasmodium berghei or falciparum development

Tissue Location

Expressed in platelets (at protein level). Expressed in heart, brain, lung, skeletal muscle, and kidney

References

Rana A.P.,et al.Proc. Natl. Acad. Sci. U.S.A. 90:6651-6655(1993).
Azim A.C.,et al.J. Biol. Chem. 270:17407-17413(1995).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Nusbaum C.,et al.Nature 439:331-335(2006).

Images



WB Suggested Anti-EPB49 Antibody Titration: 1.0 µg/ml
Positive Control: Jurkat Whole Cell

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