

EPB49 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16598c**Specification**

EPB49 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	Q08495
Other Accession	Q9WV69 , Q08DM1 , NP_001107609.1 , NP_001107608.1
Reactivity	Human
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	45514
Antigen Region	249-277

EPB49 Antibody (Center) - Additional Information**Gene ID** 2039**Other Names**

Dematin, Dematin actin-binding protein, Erythrocyte membrane protein band 49, DMTN, DMT, EPB49

Target/Specificity

This EPB49 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 249-277 amino acids from the Central region of human EPB49.

Dilution

WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

EPB49 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

EPB49 Antibody (Center) - 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

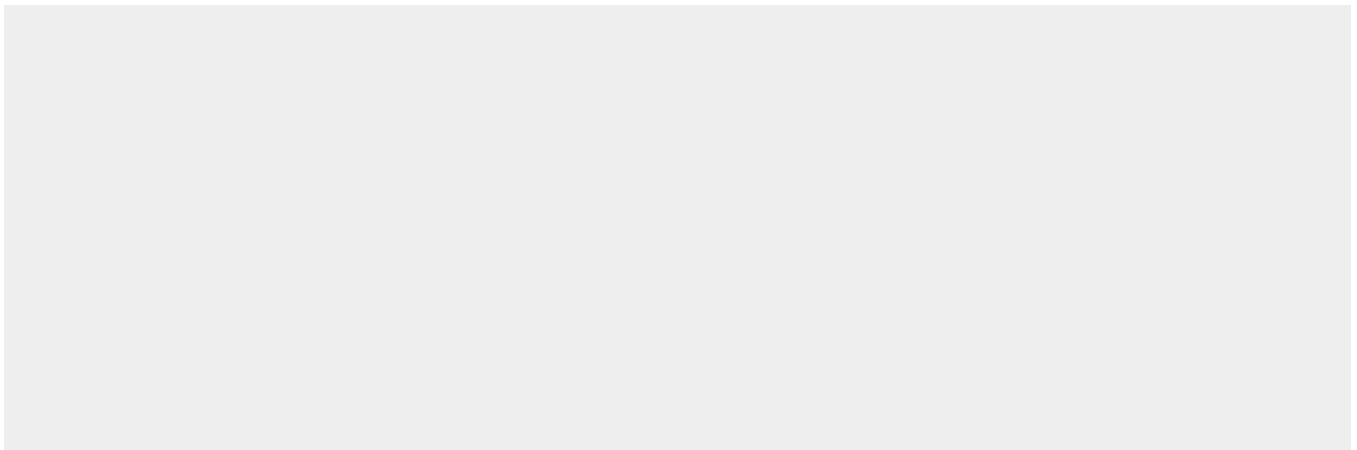
Tissue Location

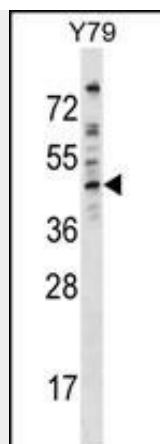
Expressed in platelets (at protein level). Expressed in heart, brain, lung, skeletal muscle, and kidney

EPB49 Antibody (Center) - 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](#)

EPB49 Antibody (Center) - Images



EPB49 Antibody (Center) (Cat. #AP16598c) western blot analysis in Y79 cell line lysates (35ug/lane). This demonstrates the EPB49 antibody detected the EPB49 protein (arrow).

EPB49 Antibody (Center) - Background

Dematin, or EPB49, is an actin-bundling protein originally identified in the erythroid membrane skeleton. Its actin-bundling activity is abolished upon phosphorylation by cAMP-dependent protein kinase and is restored after dephosphorylation (Rana et al., 1993 [PubMed 8341682]).

EPB49 Antibody (Center) - References

Vugmeyster, L., et al. J. Biomol. NMR 47(2):155-162(2010)
Chen, L., et al. Protein Sci. 18(3):629-636(2009)
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Vermeulen, W., et al. J. Mol. Biol. 359(5):1277-1292(2006)
Frank, B.S., et al. J. Biol. Chem. 279(9):7909-7916(2004)