

### **Dematin Polyclonal Antibody**

Catalog # AP69508

### **Specification**

## **Dematin Polyclonal Antibody - Product Information**

Application WB, IHC-P, IF
Primary Accession
Reactivity Human, Mouse
Host Rabbit
Clonality Polyclonal

### **Dematin Polyclonal Antibody - Additional Information**

**Gene ID 2039** 

**Other Names** 

EPB49; DMT; Dematin; Erythrocyte membrane protein band 4.9

**Dilution** 

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence:

1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.

IHC-P~~N/A IF~~1:50~200

### **Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions** 

-20°C

# **Dematin Polyclonal Antibody - 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**

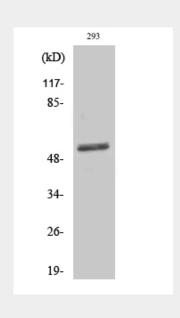
Expressed in platelets (at protein level). Expressed in heart, brain, lung, skeletal muscle, and kidney

### **Dematin Polyclonal Antibody - Protocols**

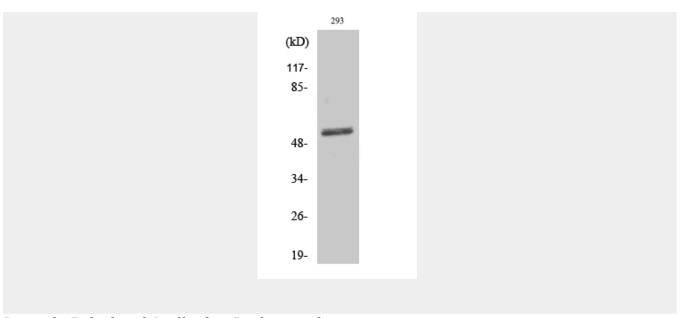
Provided below are standard protocols that you may find useful for product applications.

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

### **Dematin Polyclonal Antibody - Images**







# **Dematin Polyclonal Antibody - Background**

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. Plays also 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.