



Dematin Polyclonal Antibody

Catalog No	YP-Ab-03123
Isotype	IgG
Reactivity	Human;Mouse
Applications	WB;IHC;IF;ELISA
Gene Name	EPB49
Immunogen	The antiserum was produced against synthesized peptide derived from human Dematin. AA range:356-405
Specificity	Dematin Polyclonal Antibody detects endogenous levels of Dematin protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	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.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	EPB49;EPB 49;DMTN;Dematin actin-binding protein;Dematin;DMT;Erythrocyte membrane protein band 4.9
Observed Band	50kD
Calculated Molecular Weight	50kD
Cell Pathway	Cytoplasm. Cytoplasm, cytosol. Cytoplasm, perinuclear region . Cytoplasm, cytoskeleton. Cell membrane. Membrane . Endomembrane system. Cell projection . 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 Specificity	Expressed in platelets (at protein level). Expressed in heart, brain, lung, skeletal muscle, and kidney.



Function

domain:Consists of a large core fragment, the amino-terminal portion, and a small headpiece, the C-terminal portion. The headpiece can bind but cannot bundle actin filaments.,domain:Contains at least two actin-binding sites, one in the headpiece domain and one in the amino-terminal portion.,function:Actin-bundling protein. May function in mitogen-activated protein kinase pathway.,PTM:Actin-bundling activity is abolished upon phosphorylation by cAMP-dependent protein kinase.,PTM:The N-terminus is blocked.,similarity:Belongs to the villin/gelsolin family.,similarity:Contains 1 HP (headpiece) domain.,subunit:Exists in solution as a trimer of two short isoforms and one long isoform linked by disulfide bonds (Probable). Interacts with RASGRF2.,tissue specificity:Heart, brain, lung, skeletal muscle, and kidney.,

Background

The protein encoded by this gene is an actin binding and bundling protein that plays a structural role in erythrocytes, by stabilizing and attaching the spectrin/actin cytoskeleton to the erythrocyte membrane in a phosphorylation-dependent manner. This protein contains a core domain in the N-terminus, and a headpiece domain in the C-terminus that binds F-actin. When purified from erythrocytes, this protein exists as a trimer composed of two 48 kDa polypeptides and a 52 kDa polypeptide. The different subunits arise from alternative splicing in the 3' coding region, where the headpiece domain is located. Disruption of this gene has been correlated with the autosomal dominant Marie Unna hereditary hypotrichosis disease, while loss of heterozygosity of this gene is thought to play a role in prostate cancer progression. Alternative splicing results in multiple transcript variants encoding di

matters needing attention

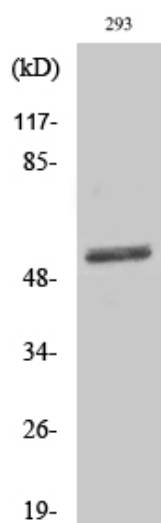
Avoid repeated freezing and thawing!

Usage suggestions

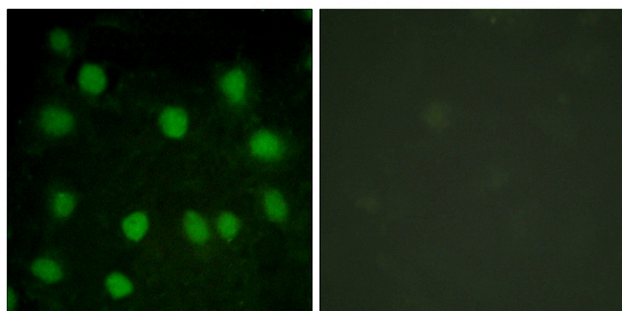
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



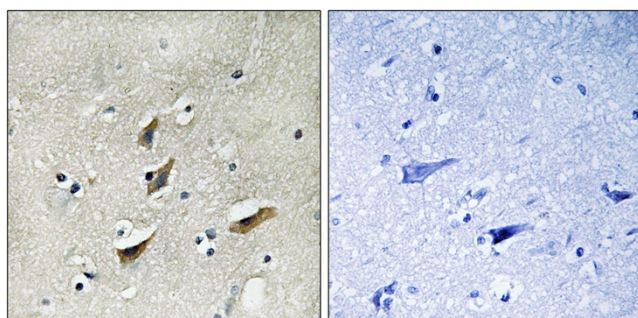
Products Images



Western Blot analysis of various cells using Dematin Polyclonal Antibody



Immunofluorescence analysis of HUVEC cells, using Dematin Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using Dematin Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from 293 cells, using Dematin Antibody. The lane on the right is blocked with the synthesized peptide.

