

Rabbit anti-Human, Mouse Dematin Polyclonal Antibody | anti-DMTN antibody

Dematin (Phospho-Ser403) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322064	Rabbit	Human, Mouse	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

Dematin; Polyclonal Antibody; Dematin (Phospho-Ser403) Antibody; DEMA; DEMA_HUMAN; DMT; EPB49; erythrocyte membrane protein band 4.9 (dematin); Erythrocyte membrane protein band 4.9; anti-DMTN antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	Dematin (Phospho-Ser403) antibody detects endogenous levels of total Dematin (Phospho-Ser403)
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	405
Applicable Applications for anti-DMTN antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Dematin (Phospho-Ser403)
Subcellular Location	Cytoplasm.
Tissue Specificity	Expressed in platelets (at protein level). Expressed in heart, brain, lung, skeletal muscle, and kidney.
Conjugation	Unconjugated
Epitope	Phospho Ser403
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)

AAA322064 at 1/100 staining Human lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of Dematin (Phospho-Ser403) expression in HeLa whole cell. The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA322064 staining HepG2 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IF (Immunofluorescence)

AAA322064 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-DMTN antibody

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. 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. Subunit Structure: Monomeric (isoform 2); under reducing conditions. Self-associates. Exists under oxidizing condition as a trimer of two isoforms 2 and isoform 1 linked by disulfide bonds (Probable). Found in a complex with DMTN, F-actin and spectrin. Found in a complex with ADD2, DMTN and SLC2A1. Interacts with F-actin, ITPKB, RASGRF2 and spectrin. Isoform 2 interacts with SLC2A1 (via C-terminus cytoplasmic region). Isoform 1 and isoform 2 interact (phosphorylated form) with plasmodium berghei 14-3-3 protein; the interaction occurs in a PKA-dependent manner.

Post-translational Modifications: Phosphorylated. Phosphorylation at Ser-403 by PKA causes the C-terminal headpiece domain to associate with the N-terminal core domain, and leads to the inhibition of its actin bundling activity. The N-terminus is blocked.

Similarity: Both the N-terminal core domain and the C-terminal headpiece domain are sufficient for binding to F-actin and necessary for actin bundling activity. Belongs to the villin/gelsolin family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	166706877
NCBI GeneID	2039
NCBI Accession #	NP_001107607.1
NCBI GenBank Nucleotide #	NM_001114135.4
UniProt Accession #	Q08495 ; Q13215 ; Q9BRE3 ; A8K0T5 ; B3KP70 ; B3KRH3 ; B4DI75 ; E9PEJ0
Molecular Weight	Observed: 45 kDa Predicted: 46 kDa
NCBI Official Full Name	dematin isoform 1
NCBI Official Synonym Full Names	dematin actin binding protein
NCBI Official Symbol	DMTN
NCBI Official Synonym Symbols	DMT; EPB49
NCBI Protein Information	dematin
UniProt Protein Name	Dematin
UniProt Gene Name	DMTN
UniProt Synonym Gene Names	DMT; EPB49

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/dematin-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/322064>