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Datasheet for ABIN968326 anti-MAP4 antibody (AA 583-702)

3 Publications



Overview

Quantity:	50 µg
Target:	MAP4
Binding Specificity:	AA 583-702
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This MAP4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human MAP4 aa. 583-702
Clone:	18-MAP4
lsotype:	lgG1
Characteristics:	 Since applications vary, each investigator should titrate the reagent to obtain optimal results. Please refer to us for technical protocols
	 Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

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Target Details	
Target:	MAP4
Alternative Name:	MAP4 (MAP4 Products)
Background:	The microtubule (MT) cytoskeleton functions in cytoplasmic organization, cellular movement, determination of cell polarity, intracellular transport, and chromosome segregation. Dynamic instability, continuous cycles of MT assembly (stabilization) and disassembly, mediates MT participation in these events. The function of MTs, particularly stabilization, is regulated by MT- associated proteins (MAPs). A subfamily of MAPs, called AP-MAPs (assembly promoting MAPs), includes tau, MAP2, and MAP4. These proteins are classified as type II MAPs and contain a C-terminal MT binding domain with 3 to 5 imperfect repeats of an 18 amino acid motif. While tau and MAP2 are specifically expressed in neuronal cells, MAP4 is the major MAP of nonneuronal mammalian cells. MAP activity and interaction with MTs are regulated by MARK (MAP/MT affinity-regulating kinase) and mapmodulin. MARK-mediated phosphorylation of MAPs on their homologous KXGS motifs results in detachment of MAPs from MTs and MT disruption. In addition, mapmodulin tightly interacts with the MT-binding domains of MAPs and hinders MAP binding to MTs. Thus, MAP4 is a highly regulated type II MAP that controls MT assembly and disassembly.
Molecular Weight:	200-220 kDa
Pathways:	p53 Signaling, Microtubule Dynamics
Application Details	
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤ 0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

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Drewes, Ebneth, Preuss, Mandelkow, Mandelkow: "MARK, a novel family of protein kinases that phosphorylate microtubule-associated proteins and trigger microtubule disruption." in: **Cell**, Vol. 89, Issue 2, pp. 297-308, (1997) (PubMed).

Ulitzur, Humbert, Pfeffer: "Mapmodulin: a possible modulator of the interaction of microtubuleassociated proteins with microtubules." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 94, Issue 10, pp. 5084-9, (1997) (PubMed).

Chapin, Lue, Yu, Bulinski: "Differential expression of alternatively spliced forms of MAP4: a repertoire of structurally different microtubule-binding domains." in: **Biochemistry**, Vol. 34, Issue 7, pp. 2289-301, (1995) (PubMed).

Images





Western Blotting

Image 1.

Image 2. Western blot analysis of MAP4 on HepG2 lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1: 4000 dilution of MAP4.

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Image 3. Human Endothelial

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