Datasheet for ABIN967494

anti-MAP2 antibody

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Overview

Quantity:	0.1 mg
Target:	MAP2
Reactivity:	Human, Rat, Cow, Quail, Frog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This MAP2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Brand:	BD Pharmingen™
Immunogen:	Cow MAP2
Clone:	Ap20
Isotype:	IgG1
Cross-Reactivity:	Human, Frog, Quail, Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. 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.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	MAP2
Alternative Name:	MAP2 (MAP2 Products)
Background:	Microtubule-associated protein 2 (MAP2) is a neuronal cytoskeletal protein that binds to tubulin and stabilizes microtubules. It is expressed in the cell body and dendrites of neurons, but is absent in neuronal processes. The expression of MAP2 is developmentally regulated, and there are multiple high and low molecular weight isoforms, all derived from one MAP2 gene. MAP2a, MAP2b, and MAP2c are the three major MAP2 isoforms. The high molecular weight MAP2 isoforms, MAP2a and MAP2b consist of a large projection arm and a short microtubule binding domain. The low molecular weight MAP-2 isoform, MAP2c, lacks most of the projection arm of the high molecular weight isoforms. MAP2c is the earliest expressed MAP2 and is derived by alternative splicing MAP2a and MAP2b are considered to be adult expressed MAPs, with MAP2a expression occuring later in development than MAP2b expression. MAP2a is thought to result from a post-translational modification of MAP2b. High molecular weight MAP2 isoforms (2a and 2b) migrate as a doublet at a molecular weight of >300 kDa. The low molecular weight MAP2 isoform 2c migrates at 70 kDa. The Ap-20 antibody recognizes high molecular weight MAP2 isoforms MAP2a and MAP2b. Specifically, it has been shown to recognize MAP2a and MAP2b from human, bovine, rat, frog, and quail cells and tissues. Ap-20 does not recognize the low molecular weight MAP2 isoforms (MAP2c) or other microtubule proteins. Ap-20 reacts with an epitope between amino acids 997-1332 of high molecular weight MAP2 isoforms.4 Bovine MAP2 was used as immunogen. Synonyms: a and b Isoforms
Molecular Weight:	280 kDa

Application Details

Application Notes:	Applications include western blot analysis (1-2 µg/ml), immunoprecipitation, and immunohistochemistry of paraformaldehyde-fixed tissue cultured cells, and frozen tissue sections. T98G human glioblastoma cells (ATCC CRL-1690) and rat brain enriched microtubule protein preparations are suggested as positive controls.
Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤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:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

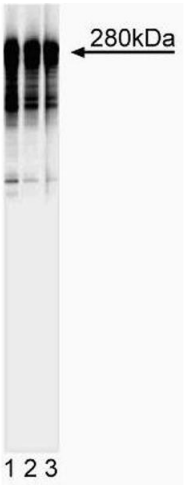
Product cited in:

Kalcheva, Albala, Binder, Shafit-Zagardo: "Localization of specific epitopes on human microtubule-associated protein 2." in: **Journal of neurochemistry**, Vol. 63, Issue 6, pp. 2336-41, (1994) (PubMed).

Tucker: "The roles of microtubule-associated proteins in brain morphogenesis: a review." in: **Brain research. Brain research reviews**, Vol. 15, Issue 2, pp. 101-20, (1991) (PubMed).

Tucker, Binder, Viereck, Hemmings, Matus: "The sequential appearance of low- and high-molecular-weight forms of MAP2 in the developing cerebellum." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 8, Issue 12, pp. 4503-12, (1989) (PubMed).

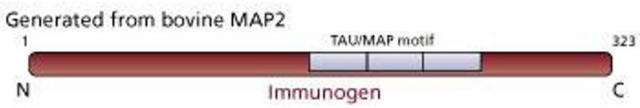
Binder, Frankfurter, Rebhun: "Differential localization of MAP-2 and tau in mammalian neurons in situ." in: **Annals of the New York Academy of Sciences**, Vol. 466, pp. 145-66, (1986) (PubMed).

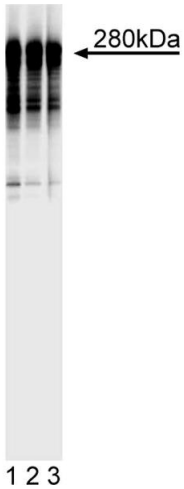


Western Blotting

Image 1. Western blot analysis of MAP2. Rat brain lysate was probed with anti- MAP2 at concentrations of 4.0 (lane 1), 2.0 (lane 2), and 1.0 µg/ml (lane 3). MAP2 is identified as a band of ~280 kDa.

Image 2.





Western Blotting

Image 3.