Technical Data Sheet

Purified Mouse Anti-MAP1B

Product Information

Material Number:	**612678**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	6/MAP1B
Immunogen:	Mouse MAP1B aa. 1745-1858
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Mouse Tested in Development: Human, Rat
Target MW:	320-340 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Microtubule-associated proteins (MAPs) play a crucial role in the development and structure of nerve cells. These proteins are important for the assembly and stability of microtubles during neurite outgrowth and for the morphology of neuronal processes, such as dendrites. MAP1B encodes for a single precursor protein that is cleaved to produce a single heavy chain of 280 kDa and a light chain of 32 kDa which become noncovalently associated. Expression levels of MAP1B are reportedly highest in the brain and are modulated during development as reported with gene silencing experiments that implicate MAP1B's role during neuronal differentiation. In addition, MAP1B can be selectively phosphorylated depending on the cell type, subcellular localization and developmental phase. In neurons, MAP1B is expressed as a glycoprotein at the plasma membrane, where it can interact with proteins participating in axonal guiding. MAP1B has been reported to be observable to migrate in a range between 320-340 kDa.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

Western blot analysis of MAP1B on a mouse fetus head lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the anti- MAP1B antibody.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

Application Notes

Application

Western blot	Routinely Tested

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Ma D, Himes BT, Shea TB, Fischer I. Axonal transport of microtubule-associated protein 1B (MAP1B) in the sciatic nerve of adult rat: distinct transport rates of different isoforms. *J Neurosci.* 2000; 20(6):2112-2120.(Biology)

Togel M, Wiche G, Propst F. Novel features of the light chain of microtubule-associated protein MAP1B: microtubule stabilization, self interaction, actin filament binding, and regulation by the heavy chain. *J Cell Biol.* 1998; 143(3):695-707.(Biology)