Product datasheet

Anti-Alpha Tubulin/TUBA1A Antibody (Clone#7B12)

Catalog Number: *M03989-3*

BOSTER
antibody and ELISA experts
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Basic Information

Product Name	Anti-Alpha Tubulin/TUBA1A Antibody (Clone#7B12)
Gene Name	TUBA1A
Source	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, ICC/IF, FCM
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	E.coli-derived human Tubulin alpha recombinant protein (Position: N18-A403).
Concentration	500 ug/ml
Purification	protein G purified.
Observed MW	55 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied.

Background Information

Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha chain. Microtubules of the eukaryotic cytoskeleton perform essential and diverse functions and are composed of a heterodimer of alpha and beta tubulins. The genes encoding these microtubule constituents belong to the tubulin superfamily, which is composed of six distinct families. Genes from the alpha, beta and gamma tubulin families are found in all eukaryotes. The alpha and beta tubulins represent the major components of microtubules, while gamma tubulin plays a critical role in the nucleation of microtubule assembly. There are multiple alpha and beta tubulin genes, which are highly conserved among species. This gene encodes alpha

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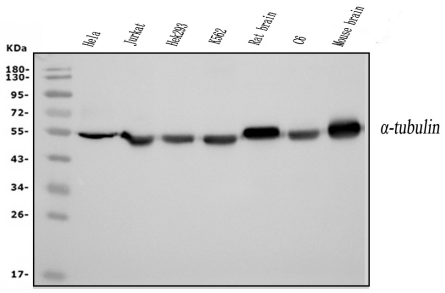
tubulin and is highly similar to the mouse and rat Tuba1 genes. Northern blot studies have shown that the gene expression is predominantly found in morphologically differentiated neurologic cells. This gene is one of three alpha-tubulin genes in a cluster on chromosome 12q. Mutations in this gene cause lissencephaly type 3 (LIS3) - a neurological condition characterized by microcephaly, intellectual disability, and early-onset epilepsy caused by defective neuronal migration. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

Reference

Anti-Alpha Tubulin/TUBA1A Antibody (Clone#7B12)被引用在14文献中。

Selected Validation Data



Western blot analysis of Alpha Tubulin/TUBA1A using anti-Alpha Tubulin/TUBA1A antibody (M03989-3). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HELA whole cell lysates,
Lane 2: human Jurkat whole cell lysates,
Lane 3: human HEK293 whole cell lysates,
Lane 4: human K562 whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: rat C6 whole cell lysates,
Lane 7: mouse brain tissue lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-Alpha Tubulin/TUBA1A antigen affinity purified monoclonal antibody (M03989-3) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Alpha Tubulin/TUBA1A at approximately 55 kDa. The expected band size for Alpha Tubulin/TUBA1A is at 50 kDa.

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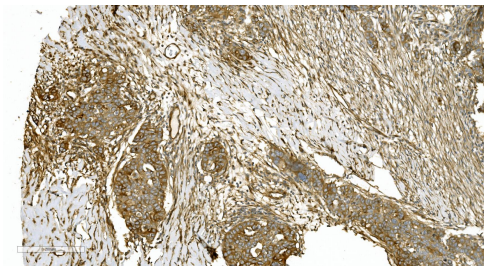
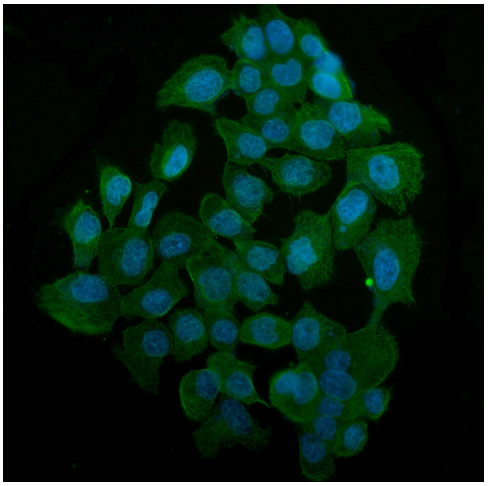
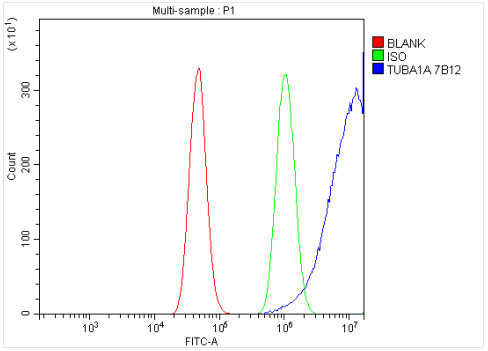


IHC analysis of Alpha Tubulin/TUBA1A using anti-Alpha Tubulin/TUBA1A antibody (M03989-3).
Alpha Tubulin/TUBA1A was detected in a paraffin-embedded section of human ovarian serous adenocarcinoma tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-Alpha Tubulin/TUBA1A Antibody (M03989-3) at a dilution of 1:200 and developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of Alpha Tubulin/TUBA1A using anti-Alpha Tubulin/TUBA1A antibody (M03989-3).
Alpha Tubulin/TUBA1A was detected in an immunocytochemical section of A431 cells. The section was incubated with mouse anti-Alpha Tubulin/TUBA1A Antibody (M03989-3) at a dilution of 1:100. Fluoro488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of A431 cells using anti-Alpha Tubulin/TUBA1A antibody (M03989-3).
Overlay histogram showing A431 cells stained with M03989-3 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Alpha Tubulin/TUBA1A Antibody (M03989-3) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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