

Basic Information

Product Name	Anti-TUBA1A/B/C Antibody	
Gene Name	TUBA1A/TUBA1B/TUBA1C	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human Tubulin alpha recombinant protein (Position: N18-A403).	
Purification	Immunogen affinity purified.	
Observed MW	50 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 Enzyme linked immunosorbent assay (ELISA): 1:100-1000 (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°C as supplied.

Background Information

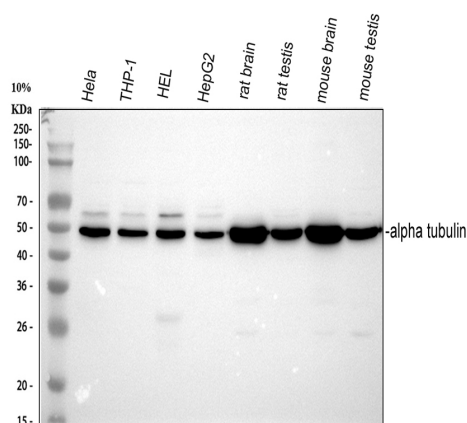
Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha chain. Microtubules of the eukaryotic cytoskeleton perform essential and diverse functions and are composed of a heterodimer of alpha 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

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-TUBA1A/B/C Antibody被引用在1文献中。

Selected Validation Data



Western blot analysis of TUBA1A/B/C using anti-TUBA1A/B/C antibody (A03989-1). 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 THP-1 whole cell lysates,

Lane 3: human HEL whole cell lysates,

Lane 4: human HepG2 whole cell lysates,

Lane 5: rat brain tissue lysates,

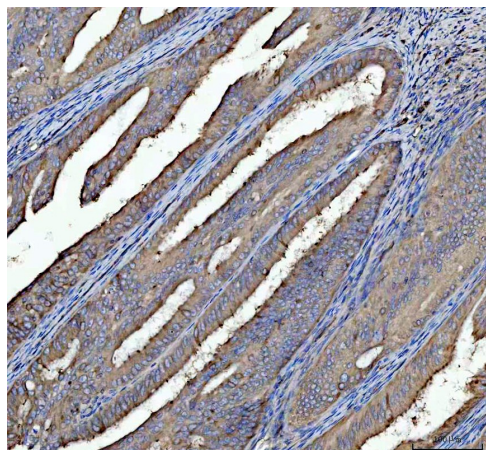
Lane 6: rat testis tissue lysates,

Lane 7: mouse brain tissue lysates,

Lane 8: mouse testis tissue lysates.

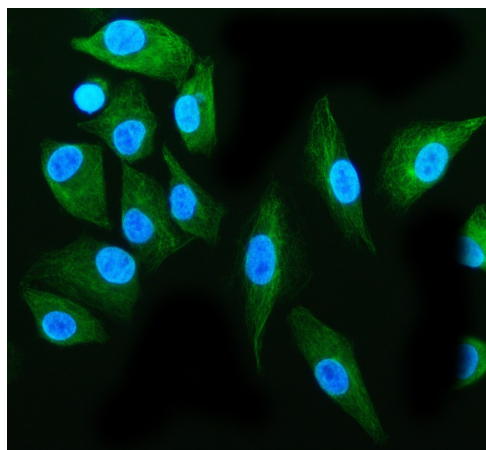
After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-TUBA1A/B/C antigen affinity purified polyclonal antibody (A03989-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for TUBA1A/B/C at approximately 50 kDa. The expected band size for TUBA1A/B/C is at 50 kDa.



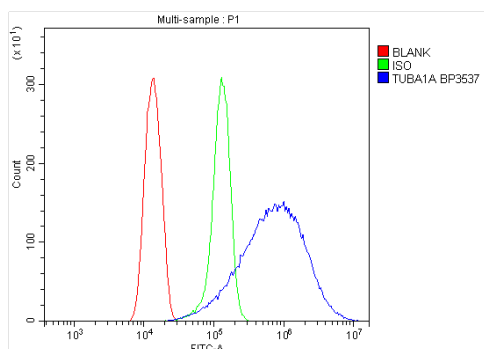
IHC analysis of TUBA1A/B/C using anti-TUBA1A/B/C antibody (A03989-1).

TUBA1A/B/C was detected in a paraffin-embedded section of human rectum adenocarcinoma tissue. The tissue section was incubated with rabbit anti-TUBA1A/B/C Antibody (A03989-1) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of TUBA1A/B/C using anti-TUBA1A/B/C antibody (A03989-1).

TUBA1A/B/C was detected in an immunocytochemical section of A549 cells. The section was incubated with rabbit anti-TUBA1A/B/C Antibody (A03989-1) at a dilution of 1:100. Fluoro488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of HeLa cells using anti-TUBA1A/B/C antibody (A03989-1).

Overlay histogram showing HeLa cells stained with A03989-1 (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 rabbit anti-TUBA1A/B/C Antibody (A03989-1) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit 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.