abcam

Product datasheet

Anti-alpha Tubulin antibody [B-5-1-2] ab11304

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Overview

Product name	Anti-alpha Tubulin antibody [B-5-1-2]
Description	Mouse monoclonal [B-5-1-2] to alpha Tubulin
Host species	Mouse
Tested applications	**Suitable for:** ICC
Species reactivity	**Reacts with:** Human **Predicted to work with:** Dog, Pig, Xenopus laevis, Cynomolgus monkey, African green monkey, Xenopus tropicalis
Immunogen	Full length native protein (purified) corresponding to alpha Tubulin. Sarkosyl-resistant filaments from Strongylocentrotus purpuratus (sea urchin) sperm axonemes.
Epitope	The antibody recognizes an epitope located at the C-terminal end of the alpha tubulin isoform.
Positive control	293T whole cell lysate (**ab95494**) can be used as a positive control in WB. Total cell extract of the Human foreskin fibroblast cell line (FS11).
General notes	Storage in frost-free freezers is also not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: 0.0268% PBS
Purity	Protein A purified

Clonality	Monoclonal
Clone number	B-5-1-2
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab11304 in the following tested applications.

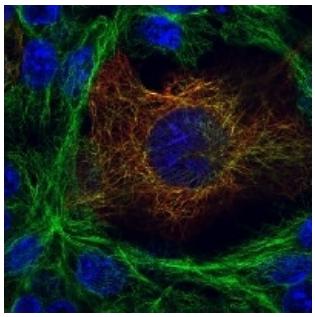
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC		Use at an assay dependent concentration.

Target

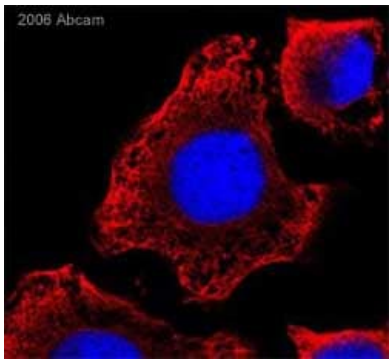
Function	Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha chain.
Sequence similarities	Belongs to the tubulin family.
Post-translational modifications	Some glutamate residues at the C-terminus are polyglutamylated. This modification occurs exclusively on glutamate residues and results in polyglutamate chains on the gamma-carboxyl group. Also monoglycylated but not polyglycylated due to the absence of functional TTLL10 in human. Monoglycylation is mainly limited to tubulin incorporated into axonemes (cilia and flagella) whereas glutamylation is prevalent in neuronal cells, centrioles, axonemes, and the mitotic spindle. Both modifications can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylation, and reciprocally. The precise function of such modifications is still unclear but they regulate the assembly and dynamics of axonemal microtubules. Acetylation of alpha chains at Lys-40 stabilizes microtubules and affects affinity and processivity of microtubule motors. This modification has a role in multiple cellular functions, ranging from cell motility, cell cycle progression or cell differentiation to intracellular trafficking and signaling.
Cellular localization	Cytoplasm > cytoskeleton.

Images



Immunocytochemistry - Anti-alpha Tubulin antibody [B-5-1-2] (ab11304)

ab11304 staining alpha Tubulin in the HEK293T cell line by ICC/IF (Immunocytochemistry/immunofluorescence) transfected with a recombinant protein HA tagged dual stained with Anti-HA Mouse primary antibody and Anti-Mouse Alexa Fluor®543 secondary antibody. Microtubules detected with Anti-α-tubulin Mouse primary antibody and Anti-Mouse Alexa Fluor®488 secondary antibody.Nuclus visualised with DAPI.



Immunocytochemistry - Anti-alpha Tubulin antibody [B-5-1-2] (ab11304)

This image is courtesy of an Anonymous Abreview

ab11304 at a 1/100 dilution staining human HeLa cells by Immunocytochemistry/Immunofluorescence. The cells were methanol fixed and blocked for 1 hour with 10% serum. The antibody was then incubated with the cells for 1 hour. Bound antibody was detected using a Goat anti-mouse TRITC antibody.

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