abcam

Product datasheet

Anti-Tubulin antibody [YOL1/34] (FITC) ab150252

Overview

Product name	Anti-Tubulin antibody [YOL1/34] (FITC)
Description	Rat monoclonal [YOL1/34] to Tubulin (FITC)
Host species	Rat
Conjugation	FITC. Ex: 493nm, Em: 528nm
Tested applications	**Suitable for:** ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Dog, Human, Saccharomyces cerevisiae, Schizosaccharomyces pombe, Alligator
Immunogen	Full length native protein (purified) (S. cerevisiae).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	Preservative: 0.01% Sodium Azide Constituents: PBS, pH 7.4
Purity	IgG fraction
Clonality	Monoclonal
Clone number	YOL1/34
Isotype	IgG2a

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab150252 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/IF		Use at an assay dependent dilution.

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	Undergoes a tyrosination/detyrosination cycle, the cyclic removal and re-addition of a C-terminal tyrosine residue by the enzymes tubulin tyrosine carboxypeptidase (TTCP) and tubulin tyrosine ligase (TTL), respectively. 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-tubulins 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.

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