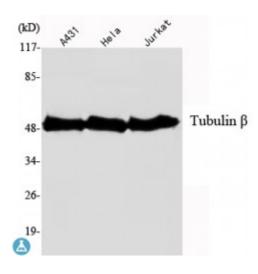


Anti-Tubulin beta antibody



Description Mouse monoclonal to Tubulin beta.

Model STJ98566

Host Mouse

Reactivity Bovine, Human, Mouse, Rabbit, Rat

Applications WB

Immunogen Purified recombinant human Tubulin beta protein fragments expressed in

E.coli.

Gene ID 81027

Gene Symbol <u>TUBB1</u>

Dilution range WB 1:1000-1:2000

Specificity Tubulin beta Monoclonal Antibody detects endogenous levels of Tubulin beta

protein.

Tissue Specificity Hematopoietic cell-specific. Major isotype in leukocytes, where it represents

50% of all beta-tubulins.

Purification Affinity purification

Note For Research Use Only (RUO).

Protein Name Tubulin beta-1 chain

Clonality Monoclonal

Conjugation Unconjugated

Formulation Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4,

150 mM NaCl) with 0.2% sodium azide, 50% glycerol.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:16257OMIM:612901</u>

Alternative Names Tubulin beta-1 chain

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.

Cellular Localization Cytoplasm, cytoskeleton

Post-translational Modifications

Some glutamate residues at the C-terminus are polyglutamylated, resulting in polyglutamate chains on the gamma-carboxyl group. Polyglutamylation plays a key role in microtubule severing by spastin (SPAST). SPAST preferentially recognizes and acts on microtubules decorated with short polyglutamate tails: severing activity by SPAST increases as the number of glutamates per tubulin rises from one to eight, but decreases beyond this glutamylation threshold. Some glutamate residues at the C-terminus are 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). Both polyglutamylation and monoglycylation can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylation, and reciprocally. The precise function of monoglycylation is still unclear (Probable). Phosphorylated on Ser-172 by CDK1 during the cell cycle, from metaphase to telophase, but not in interphase. This phosphorylation inhibits tubulin incorporation into microtubules.

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