

Cy3[®] Anti-beta Tubulin antibody [TUB 2.1] ab11309

★★★★★ [11 Abreviews](#) [10 References](#) [1 Image](#)

Overview

Product name	Cy3 [®] Anti-beta Tubulin antibody [TUB 2.1]
Description	Cy3 [®] Mouse monoclonal [TUB 2.1] to beta Tubulin
Host species	Mouse
Conjugation	Cy3 [®] . Ex: 552nm, Em: 565nm
Tested applications	Suitable for: ICC/IF
Species reactivity	Reacts with: Chicken
Immunogen	Full length protein corresponding to beta Tubulin. Purified rat brain tubulin.
Epitope	Ab11309 specifically recognizes an epitope in the carboxy-terminal part of beta-tubulin (between amino acids 281-446).
Positive control	Cultured chicken fibroblasts.
General notes	<p>If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.</p> <p>The product is prepared by conjugation of Cy3 to purified monoclonal anti-beta-tubulin antibody. The conjugate is purified by gel filtration to remove unbound Cy3 fluorophore. F/P Molar Ratio: (Cy3:Ab) 3 to 9.</p> <p>This product or portions thereof is manufactured under license from Carnegie Mellon University under U.S. Patent Number 5, 268, 486 and related patents. Cy[®] and CyDye[®] are trademarks of Cytiva.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituents: 0.0268% PBS, 1% BSA
Purity	Proprietary Purification
Clonality	Monoclonal
Clone number	TUB 2.1
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab11309 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	★★★★★ (3)	1/200.

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.
Tissue specificity	Ubiquitously expressed with highest levels in spleen, thymus and immature brain.
Involvement in disease	Cortical dysplasia, complex, with other brain malformations 6 Skin creases, congenital symmetric circumferential, 1
Sequence similarities	Belongs to the tubulin family.
Domain	The highly acidic C-terminal region may bind cations such as calcium.
Post-translational modifications	Some glutamate residues at the C-terminus are polyglutamylated, resulting in polyglutamate chains on the gamma-carboxyl group (PubMed:26875866). 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 (PubMed:26875866). Some glutamate residues at the C-terminus are monoglycylated but not polyglycylated due to the absence of functional TTL10 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. 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.
Cellular localization	Cytoplasm, cytoskeleton.

Images



Immunofluorescent analysis of methanol fixed, acetone permeabilized chicken fibroblast cells labelling beta-Tubulin-Cy3 using ab11309 at 1/200 dilution.

Immunocytochemistry/ Immunofluorescence - Cy3 ©
Anti-beta Tubulin antibody [TUB 2.1] (ab11309)

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