

Product datasheet

Anti-Tubulin antibody ab59680

★★★★★ 1 Abreviews 4 References 2 Images

Overview

Product name	Anti-Tubulin antibody
Description	Rabbit polyclonal to Tubulin
Specificity	ab59680 recognises alpha/beta-tubulin.
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to a sequence of human Tubulin.
Positive control	HeLa cell lysate.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.01% Thimerosal (merthiolate) Constituents: 30% Glycerol, 0.5% BSA, PBS
Purification notes	ab59680 is affinity purified.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab59680** in the following tested applications.

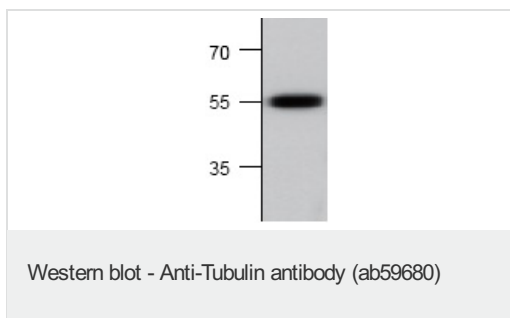
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★	Use a concentration of 0.5 - 4 µg/ml. Detects a band of approximately 55 kDa (predicted molecular weight: 55 kDa).
ICC/IF		Use a concentration of 5 µg/ml.

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	<p>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.</p> <p>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 TTL10 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.</p> <p>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.</p>
Cellular localization	Cytoplasm > cytoskeleton.

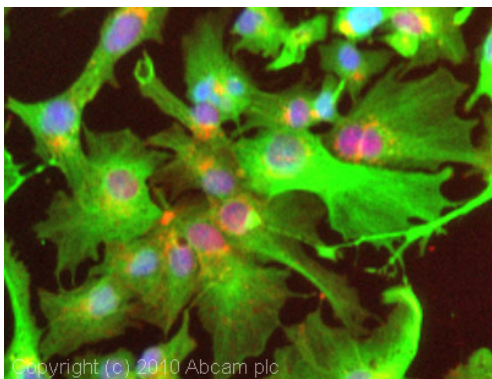
Anti-Tubulin antibody images



Anti-Tubulin antibody (ab59680) at 4 µg/ml +
HeLa cell lysate

Predicted band size : 55 kDa

Observed band size : 55 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Tubulin antibody (ab59680)

ICC/IF image of ab59680 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab59680, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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