

Alexa Fluor® 488 Anti-alpha Tubulin antibody [EP1332Y] - Microtubule Marker ab185031

Recombinant RabMAb

★★★★★ 1 Abreviews 1 References 4 Images

Overview

Product name	Alexa Fluor® 488 Anti-alpha Tubulin antibody [EP1332Y] - Microtubule Marker
Description	Alexa Fluor® 488 Rabbit monoclonal [EP1332Y] to alpha Tubulin - Microtubule Marker
Host species	Rabbit
Conjugation	Alexa Fluor® 488. Ex: 495nm, Em: 519nm
Tested applications	Suitable for: ICC/IF, Flow Cyt (Intra)
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Drosophila melanogaster ⓘ
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells.
General notes	<p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.</p> <p>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.</p>

Properties

Form Liquid

Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. Stable for 12 months at -20°C. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1332Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab185031 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	★★★★★ (1)	1/50 - 1/100.
Flow Cyt (Intra)		1/500. ab199091 - Rabbit monoclonal IgG (Alexa Fluor® 488), is suitable for use as an isotype control with this antibody.

Target

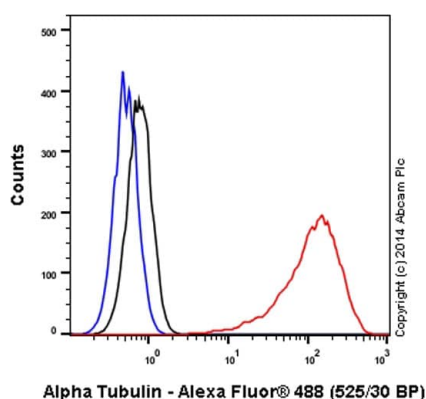
Function	Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha chain.
Sequence similarities	Belongs to the tubulin family.
Post-translational modifications	Some glutamate residues at the 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 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. 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/ Immunofluorescence - Alexa Fluor® 488 Anti-alpha Tubulin antibody [EP1332Y] - Microtubule Marker (ab185031)

ab185031 staining alpha-Tubulin in HeLa cells. The cells were fixed with 100% methanol (5min) and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab185031 at a working dilution of 1 in 100 overnight at +4°C (shown in green). Alexa Fluor® 350 WGA was used at a 1/200 dilution and incubated for 1h with the cells, to label plasma membranes (shown in blue). Nuclear DNA was labelled in red with 1.25 µM DRAQ5™ ([ab108410](#)).

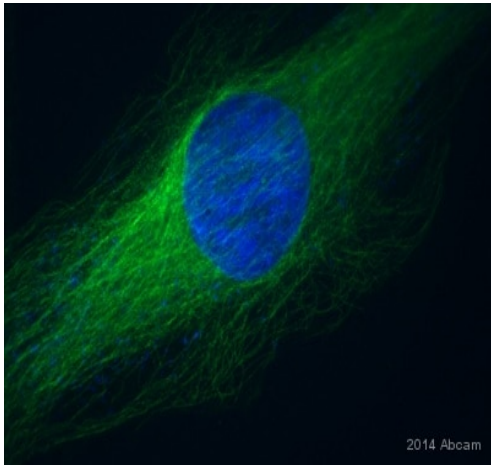


Flow Cytometry (Intracellular) - Alexa Fluor® 488 Anti-alpha Tubulin antibody [EP1332Y] - Microtubule Marker (ab185031)

Overlay histogram showing HeLa cells stained with ab185031 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab185031, 1/500 dilution) for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) Alexa Fluor® 488 used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

This antibody gave a positive signal in HeLa fixed with 4% formaldehyde (10 min)/permeabilized with 0.1% PBS-Triton X-100 for 20 min used under the same conditions.

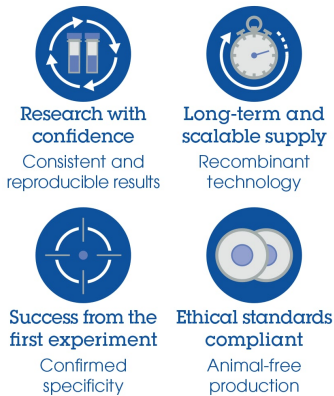


ab185031 staining alpha Tubulin in HeLa cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with formaldehyde, permeabilized with 0.1% Triton X-100 in 1X PBS and blocked with 2% BSA for 30 minutes at 25°C. Samples were incubated with primary antibody (1/100) for 1 hour at 25°C.

Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-alpha Tubulin antibody [EP1332Y] - Microtubule Marker (ab185031)

This image is courtesy of an Abreview submitted by Shijian Zhang

Why choose a recombinant antibody?



Alexa Fluor® 488 Anti-alpha Tubulin antibody [EP1332Y] - Microtubule Marker (ab185031)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise,

please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors