


Product datasheet

Alexa Fluor® 568 Anti-beta Tubulin antibody [EPR16774] α b208144

Recombinant RabMAb

2 Images

Overview

| | |
|----------------------------|--|
| Product name | Alexa Fluor® 568 Anti-beta Tubulin antibody [EPR16774] |
| Description | Alexa Fluor® 568 Rabbit monoclonal [EPR16774] to beta Tubulin |
| Host species | Rabbit |
| Conjugation | Alexa Fluor® 568. Ex: 578nm, Em: 603nm |
| Tested applications | Suitable for: ICC/IF |
| Species reactivity | Reacts with: Human Predicted to work with: Mouse, Rat, Chicken, Cow, Dog, Drosophila melanogaster, Monkey, Zebrafish, Xenopus tropicalis  |
| Immunogen | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| Positive control | ICC/IF: HeLa cells |
| General notes | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <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</p> |

Properties

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|-----------------------------|--|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark. |
| Storage buffer | pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA, 30% Glycerol (glycerin, glycerine) |
| Purity | Immunogen affinity purified |
| Clonality | Monoclonal |
| Clone number | EPR16774 |
| Isotype | IgG |

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab208144 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 | | 1/100. This product gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 min) and 100% methanol (5 min) |

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 TLL10 in human. Monoglycylation is mainly limited to tubulin incorporated |

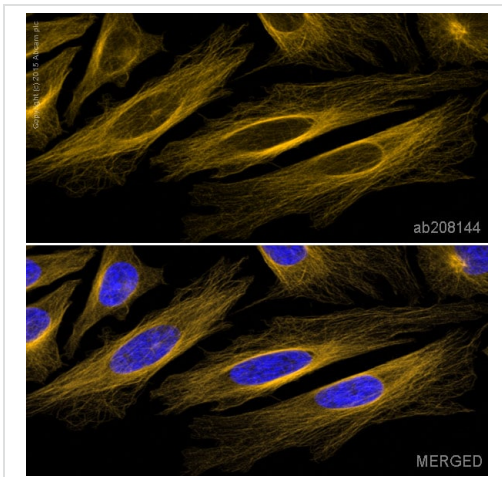
into axonemes (cilia and flagella). Both polyglutamylation and monoglycylation can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylation, and reciprocally. The precise function of monoglycylation is still unclear.

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



ab208144 staining beta Tubulin in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab208144 at a 1/100 dilution (shown in orange). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in HeLa cells fixed with 100% methanol (5 min)

Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 568 Anti-beta Tubulin antibody [EPR16774] (ab208144)

Why choose a recombinant antibody?

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|  <p>Research with confidence Consistent and reproducible results</p> |  <p>Long-term and scalable supply Recombinant technology</p> |
|  <p>Success from the first experiment Confirmed specificity</p> |  <p>Ethical standards compliant Animal-free production</p> |

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

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