

Product datasheet

Anti-beta IV Tubulin antibody [EPR16776] - BSA and Azide free ab238433

Recombinant RabMAb

[7 Images](#)

Overview

Product name	Anti-beta IV Tubulin antibody [EPR16776] - BSA and Azide free
Description	Rabbit monoclonal [EPR16776] to beta IV Tubulin - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: WB, Flow Cyt, ICC/IF, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human beta IV Tubulin aa 400 to the C-terminus. The exact sequence is proprietary. Database link: P04350
Positive control	IHC-P: Mouse testis and cerebrum tissues. ICC/IF: HeLa and C6 cells. Flow Cyt: HeLa and C6 cells.
General notes	Ab238433 is the carrier-free version of ab179509 . This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Our [carrier-free formats](#) are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.

Use our [conjugation kits](#) for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

ab238433 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.

Maxpar® is a trademark of Fluidigm Canada Inc.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR16776
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab238433** in the following tested applications.

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

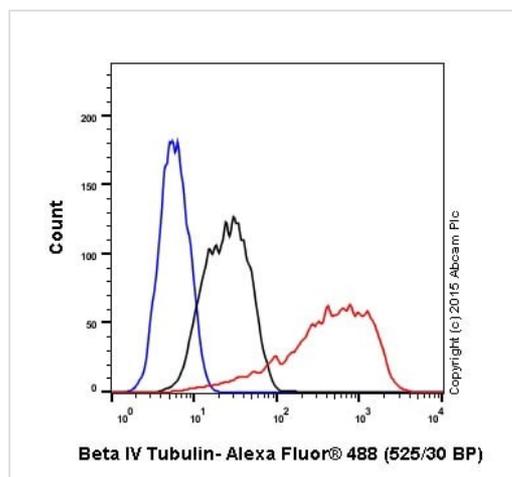
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 50 kDa (predicted molecular weight: 50 kDa).
Flow Cyt		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. IHC application is recommended for mouse only.

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.
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. 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 TLL10 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 polyglutamylated, and reciprocally. The precise function of such modifications is still unclear but they regulate the assembly and dynamics of axonemal microtubules.
Cellular localization	Cytoplasm > cytoskeleton.

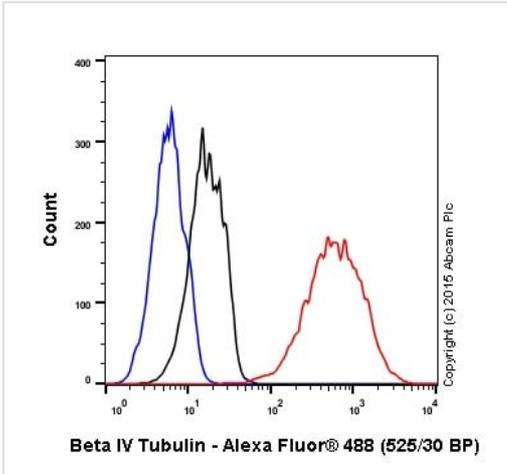
Images



Flow Cytometry - Anti-beta IV Tubulin antibody [EPR16776] - BSA and Azide free (ab238433)

Flow cytometric analysis of 4% paraformaldehyde-fixed C6 (Rat glial tumor cell line) labeling beta IV Tubulin with [ab179509](#) at 1/150 (red) compared with a Rabbit IgG, monoclonal [EPR16776] -Isotype control ([ab172730](#)) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti Rabbit IgG (Alexa Fluor® 488) at 1/500 dilution was used as the secondary antibody.

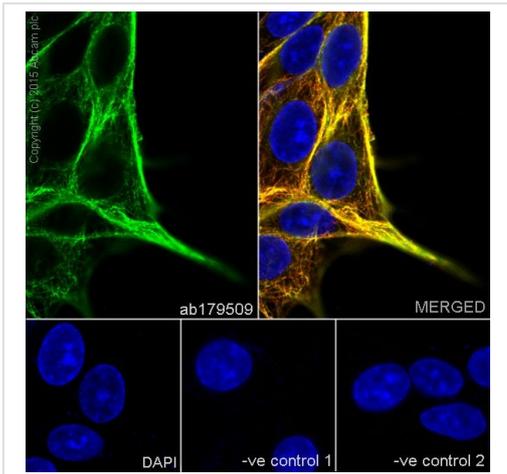
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab179509](#)).



Flow Cytometry - Anti-beta IV Tubulin antibody [EPR16776] - BSA and Azide free (ab238433)

Flow cytometric analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cell line from cervix adenocarcinoma) cell line labeling beta IV Tubulin with [ab179509](#) at 1/150 dilution (red) compared with a Rabbit IgG, monoclonal [EPR16776]- Isotype Control ([ab172730](#)) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti Rabbit IgG (Alexa Fluor® 488) at 1/500 dilution was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab179509](#)).



Immunocytochemistry/ Immunofluorescence - Anti-beta IV Tubulin antibody [EPR16776] - BSA and Azide free (ab238433)

Immunofluorescent analysis of 100% methanol fixed C6 (Rat glial tumor cell line) labeling beta IV Tubulin with [ab179509](#) at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

Cytoplasm staining on C6 cell line is observed.

The nuclear counterstain is DAPI (blue).

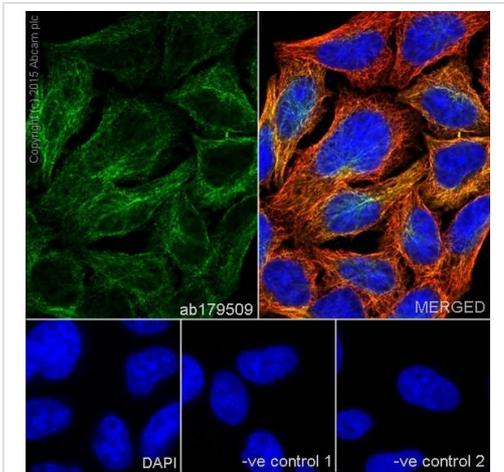
Tubulin is detected with Anti-alpha Tubulin antibody [EPR16776] - Loading Control ([ab7291](#)) at 1/1000 dilution and Goat Anti-Mouse IgG (AlexaFluor®594) preadsorbed ([ab150120](#)) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1 : [ab179509](#) at 1/500 dilution followed by [ab150120](#) at 1/1000 dilution.

-ve control 2.: [ab7291](#) at 1/1000 dilution followed by [ab150077](#) at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab179509](#)).



Immunocytochemistry/ Immunofluorescence - Anti-beta IV Tubulin antibody [EPR16776] - BSA and Azide free (ab238433)

Immunofluorescent analysis of 100% methanol fixed HeLa (Human epithelial cell line from cervix adenocarcinoma) cell line labeling beta IV Tubulin with [ab179509](#) at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

Cytoplasm staining on HeLa cell line is observed.

The nuclear counterstain is DAPI (blue).

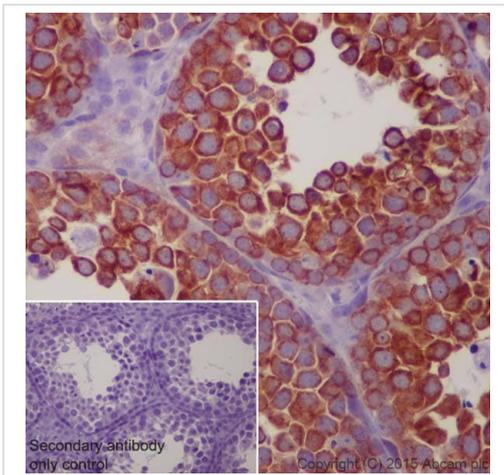
Tubulin is detected with Anti-alpha Tubulin antibody [EPR16776] - Loading Control ([ab7291](#)) at 1/1000 dilution and Goat Anti-Mouse IgG H&L (AlexaFluor®594) preadsorbed ([ab150120](#)) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1 - [ab179509](#) at 1/500 followed by [ab150120](#) at 1/1000.

-ve control 2. - [ab7291](#) at 1/1000 followed by [ab150077](#) at 1/1000.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab179509](#)).



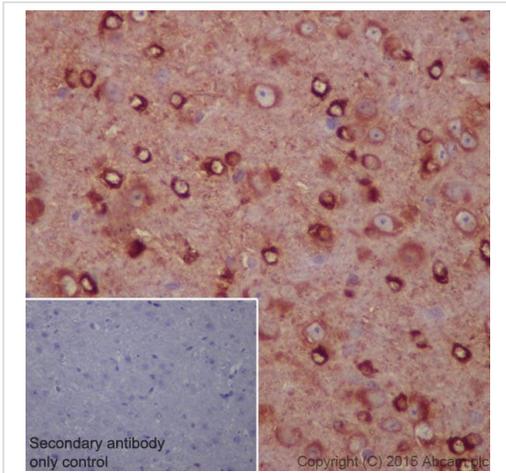
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta IV Tubulin antibody [EPR16776] - BSA and Azide free (ab238433)

Immunohistochemical analysis of paraffin-embedded Mouse testis tissue labeling beta IV Tubulin with [ab179509](#) at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasm staining on Mouse testis is observed. Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary antibody, secondary antibody is [ab97051](#) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab179509](#)).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling beta IV Tubulin with [ab179509](#) at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasm staining on Mouse cerebrum is observed. Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary antibody, secondary antibody is [ab97051](#) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab179509](#)).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta IV Tubulin antibody [EPR16776] - BSA and Azide free ([ab238433](#))

Why choose a recombinant antibody?

 <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>

Anti-beta IV Tubulin antibody [EPR16776] - BSA and Azide free ([ab238433](#))

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

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- We investigate all quality concerns to ensure our products perform to the highest standards

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