


## Product datasheet

# Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control ab176560

Recombinant RabMAb

★★★★★ 11 Abreviews 20 References 10 Images

### Overview

<b>Product name</b>	Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control
<b>Description</b>	Rabbit monoclonal [EPR13478(B)] to alpha Tubulin - Loading Control
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat, African green monkey 
<b>Immunogen</b>	Synthetic peptide within Human alpha Tubulin aa 400 to the C-terminus (Cysteine residue). The exact sequence is proprietary. Database link: <a href="#">P68366</a>
<b>Positive control</b>	HeLa, Jurkat, A431 and K562 cell lysates; Human kidney and uterus tissues; A431 and Jurkat cells.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> . <b>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</b>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

**Storage buffer**

Preservative: 0.01% Sodium azide  
Constituents: 40% Glycerol, PBS, 0.05% BSA

**Purity**

Protein A purified

**Clonality**

Monoclonal

**Clone number**

EPR13478(B)

**Isotype**

IgG

**Applications**

**The Abpromise guarantee**

Our [Abpromise guarantee](#) covers the use of ab176560 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
Flow Cyt (Intra)		1/60. For unpurified, use 1/10. <a href="#">ab172730</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (8)	1/2000 - 1/10000. Predicted molecular weight: 50 kDa. <b>For unpurified, use 1/1000 - 1/10000.</b>
IHC-P		1/350. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <a href="#">IHC antigen retrieval protocols</a> . <b>For unpurified, use 1/100.</b>
ICC/IF	★★★★★ (2)	1/350. <b>For unpurified, use 1/100.</b>

**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**

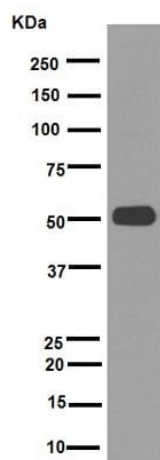
Some glutamate residues at the C-terminus are polyglutamylated. This modification occurs exclusively on glutamate residues and results in polyglutamate chains on the gamma-carboxyl group. Also monoglycylated but not polyglycylated due to the absence of functional TTL10 in human. Monoglycylation is mainly limited to tubulin incorporated into axonemes (cilia and flagella) whereas glutamylated 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.

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



Western blot - Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560)

Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560) at 1/7000 dilution (Purified) + Jurkat cell lysate at 10  $\mu$ g

### Secondary

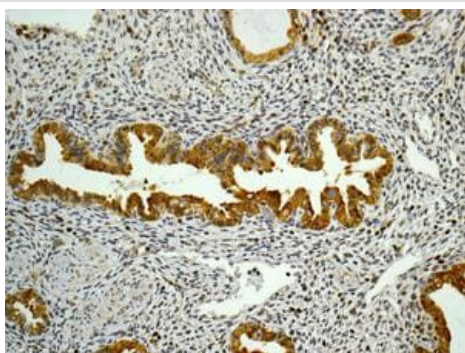
HRP goat anti-rabbit IgG (H+L) at 1/1000 dilution

**Predicted band size:** 50 kDa

**Observed band size:** 50 kDa

Blocking buffer: 5% NFD/MTBST

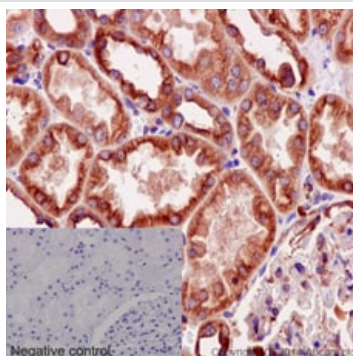
Dilution buffer: 5% NFD/MTBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human uterus tissue labeling alpha Tubulin with unpurified ab176560 at a 1/100 dilution.

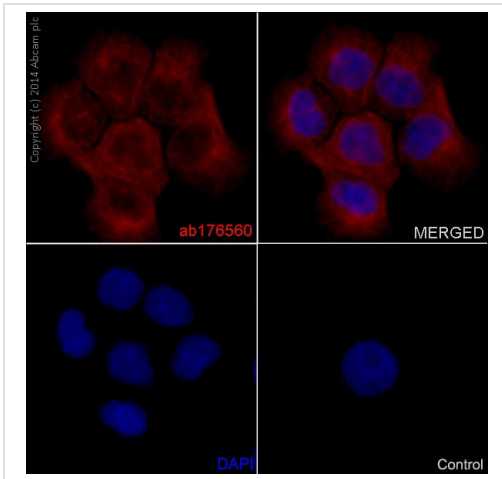
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560)

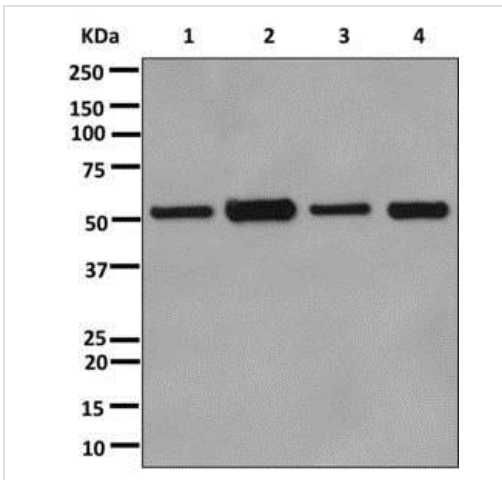
Immunohistochemical staining of paraffin embedded human kidney with purified ab176560 at a dilution of 1/350. A prediluted HRP polymer for rabbit IgG was used as the secondary and the sample was counter stained with hematoxylin. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunofluorescent staining of A431 cells fixed in 4% PFA with purified ab176560 at a dilution of 1/350. An Alexa Fluor<sup>®</sup> 555 goat anti-rabbit was used as the secondary at a dilution of 1/500 and the sample was counter stained with DAPI. An Alexa Fluor<sup>®</sup> 555 goat anti-mouse was used at a dilution of 1/500 as the negative control and is shown in the bottom right hand panel.

Immunocytochemistry/ Immunofluorescence - Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560)



**All lanes :** Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560) at 1/1000 dilution (Unpurified)

- Lane 1 :** HeLa cell lysate
- Lane 2 :** Jurkat cell lysate
- Lane 3 :** A431 cell lysate
- Lane 4 :** K562 cell lysate

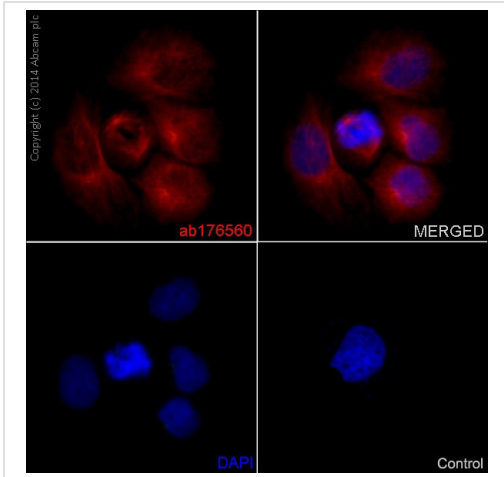
Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

Western blot - Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560)

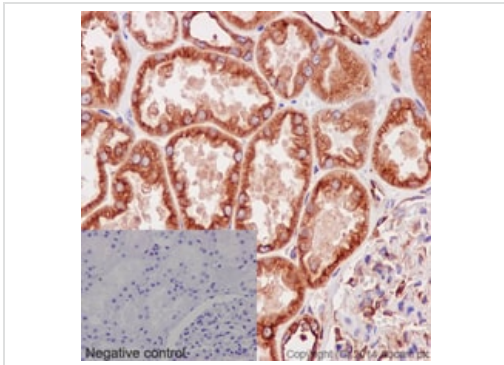
**Predicted band size:** 50 kDa

Secondary antibodies - [anti-rabbit HRP \(ab6721\)](#)



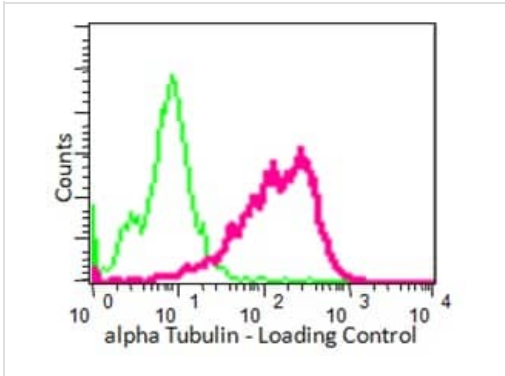
Immunocytochemistry/ Immunofluorescence - Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560)

Immunofluorescent staining of A431 cells fixed in 4% PFA with unpurified ab176560 at a dilution of 1/100. An Alexa Fluor<sup>®</sup> 555 goat anti-rabbit was used as the secondary at a dilution of 1/500 and the sample was counter stained with DAPI. An Alexa Fluor<sup>®</sup> 555 goat anti-mouse was used at a dilution of 1/500 as the negative control and is shown in the bottom right hand panel.



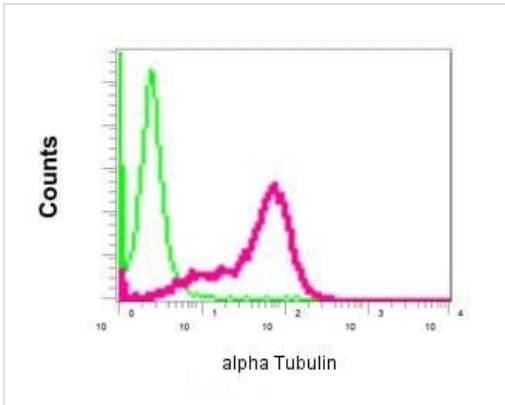
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560)

Immunohistochemical staining of paraffin embedded human kidney with unpurified ab176560 at a dilution of 1/100. A prediluted HRP polymer for rabbit IgG was used as the secondary and the sample was counter stained with hematoxylin. PBS was used instead of the primary antibody as the negative control, and is shown in the inset. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Intracellular Flow Cytometry analysis of permeabilized HeLa cells labeling alpha Tubulin (pink) with purified ab176560 at a 1/70 dilution, or negative control rabbit IgG (green). The secondary antibody was FITC goat anti-rabbit.

Flow Cytometry (Intracellular) - Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560)



Intracellular Flow Cytometry analysis of permeabilized Jurkat cells labeling alpha Tubulin (red) with unpurified ab176560 at a 1/10 dilution, or negative control rabbit IgG (green)

Flow Cytometry (Intracellular) - Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control (ab176560)

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-alpha Tubulin antibody [EPR13478(B)] - Loading  
Control (ab176560)

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

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