


Product datasheet

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

Recombinant RabMAb

★★★★★ [11 Abreviews](#) [32 References](#) [10 Images](#)

Overview

Product name	Anti-alpha Tubulin antibody [EPR13478(B)] - Loading Control
Description	Rabbit monoclonal [EPR13478(B)] to alpha Tubulin - Loading Control
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, African green monkey 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HeLa, Jurkat, A431 and K562 cell lysates; Human kidney and uterus tissues; A431 and Jurkat 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>

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 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. ab172730 - 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. For unpurified, use 1/1000 - 1/10000.
IHC-P		1/350. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u> . For unpurified, use 1/100.
ICC/IF	★★★★★ (2)	1/350. For unpurified, use 1/100.

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

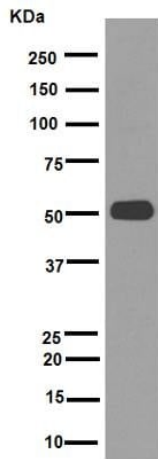
Some glutamate residues at the C-terminus are polyglutamylated. This modification occurs exclusively on glutamate residues and results in polyglutamate chains on the gamma-carboxyl group. Also monoglycylated but not polyglycylated due to the absence of functional TTL10 in human. Monoglycylation is mainly 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



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 µg

Secondary

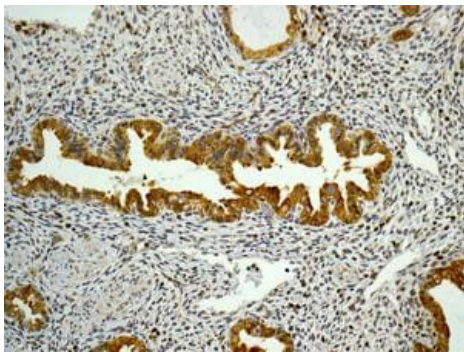
HRP goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 50 kDa

Observed band size: 50 kDa

Blocking buffer: 5% NFDM/TBST

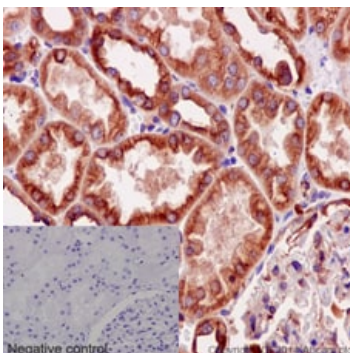
Dilution buffer: 5% NFDM/TBST



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.

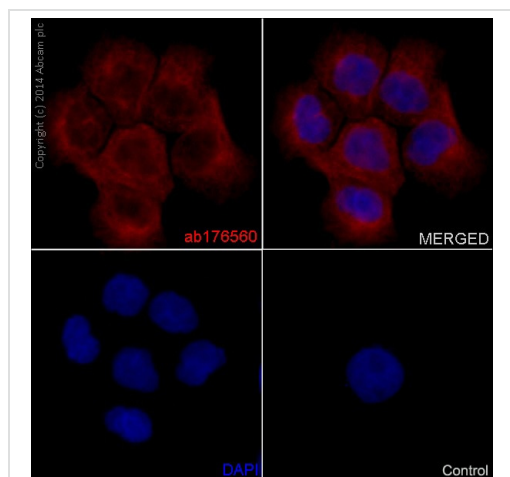
Perform heat mediated antigen retrieval before commencing with
IHC staining protocol.



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

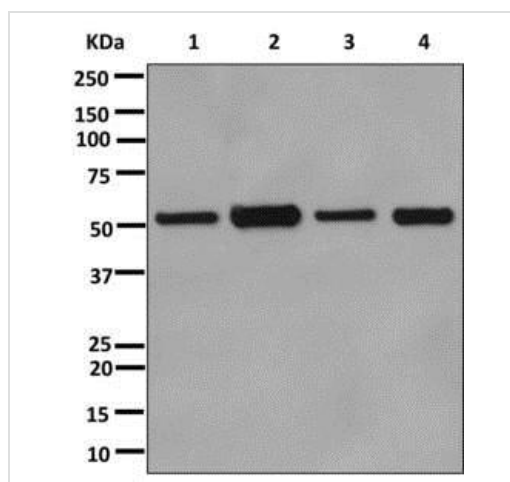
Immunohistochemical staining of paraffin embedded human kidney
with purified ab176560 at a dilution of 1/350. A prediluted HRP
polymer for rabbit IgG was used as the secondary and the sample
was counter stained with hematoxylin. PBS was used instead of the
primary antibody as the negative control, and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

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



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

Immunofluorescent staining of A431 cells fixed in 4% PFA with purified ab176560 at a dilution of 1/350. An Alexa Fluor® 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® 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.



Western blot - 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

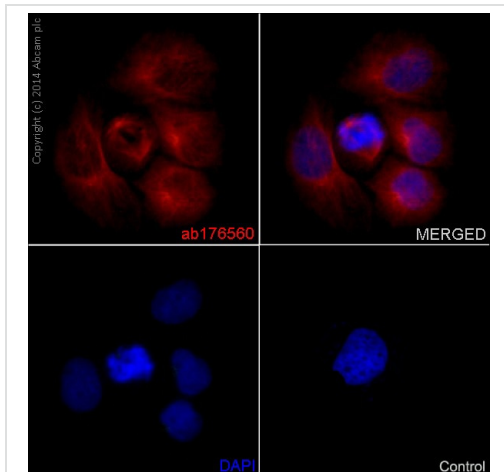
Lane 4 : K562 cell lysate

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

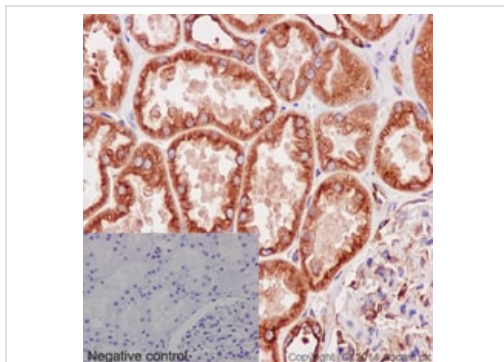
Predicted band size: 50 kDa

Secondary antibodies - anti-rabbit HRP (ab6721)



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

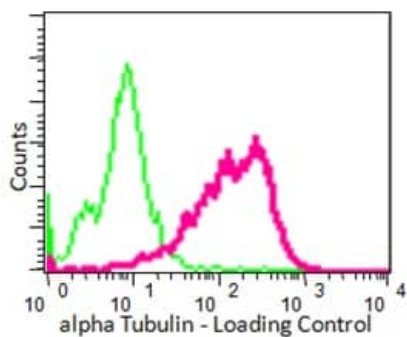
Immunofluorescent staining of A431 cells fixed in 4% PFA with unpurified ab176560 at a dilution of 1/100. An Alexa Fluor® 555 goat anti-rabbit was used as the secondary at a dilution of 1/500 and the sample was counter stained with DAPI. An Alexa Fluor® 555 goat anti-mouse was used at a dilution of 1/500 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)

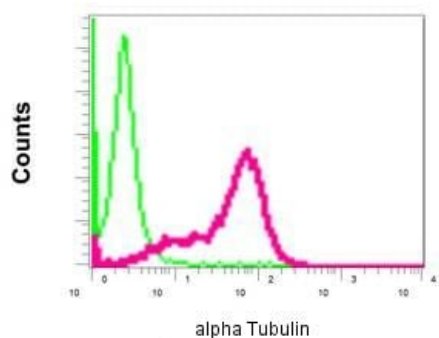
Immunohistochemical staining of paraffin embedded human kidney with unpurified ab176560 at a dilution of 1/100. A prediluted HRP polymer for rabbit IgG was used as the secondary and the sample was counter stained with hematoxylin. PBS was used instead of the primary antibody as the negative control, 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)

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