


### Anti-beta Tubulin antibody [EPR16774] ab179513

**重组** RabMAb

★★★★★ **1 Abreviews** **69 References** **14 图像**

#### 概述

产品名称	Anti-beta Tubulin抗体[EPR16774]
描述	兔单克隆抗体[EPR16774] to beta Tubulin
宿主	Rabbit
经测试应用	适用于: IHC-P, WB, ICC/IF, Flow Cyt (Intra)
种属反应性	与反应: Mouse, Rat, Chicken, Cow, Dog, Human, Drosophila melanogaster, Zebrafish, African green monkey, Xenopus tropicalis, Recombinant fragment 预测可用于: Monkey 
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: Human beta I Tubulin recombinant protein; Zebrafish whole lysate; Xenopus tropicalis lysate; Drosophila whole lysate; UMNSAH/DF-1, MDCK, MDBK, COS-1, HeLa, Jurkat, A431, C6, RAW 264.7, PC-12, and NIH/3T3 whole cell lysates; Human fetal brain and fetal kidney lysates; Mouse brain and Rat brain lysates. IHC-P: Human cerebral cortex, Human kidney, Human glioma, mouse cerebral cortex and rat cerebral cortex tissues. ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells.
常规说明	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> .

#### 性能

形式	Liquid
存放说明	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.
存储溶液	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
纯度	Protein A purified

克隆	单克隆
克隆编号	EPR16774
同种型	IgG

应用

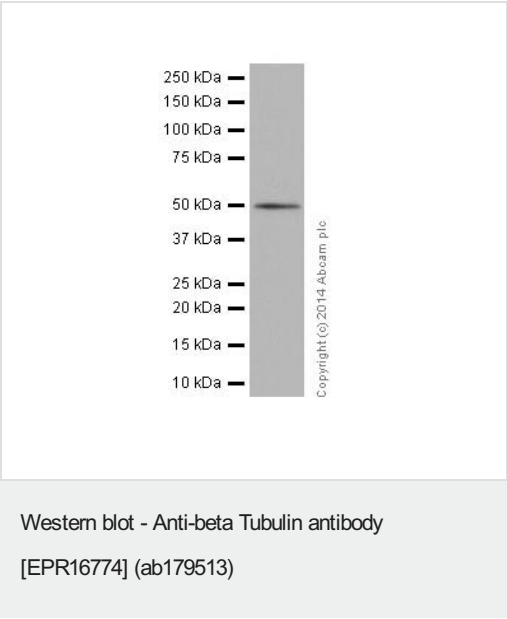
The Abpromise guarantee      **Abpromise™**承诺保证使用ab179513于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-P		1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 50 kDa (predicted molecular weight: 50 kDa).
ICC/IF		1/1000.
Flow Cyt (Intra)		1/150. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

靶标

功能	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.
组织特异性	Ubiquitously expressed with highest levels in spleen, thymus and immature brain.
疾病相关	Cortical dysplasia, complex, with other brain malformations 6 Skin creases, congenital symmetric circumferential, 1
序列相似性	Belongs to the tubulin family.
结构域	The highly acidic C-terminal region may bind cations such as calcium.
翻译后修饰	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 TTL10 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.
细胞定位	Cytoplasm, cytoskeleton.



Anti-beta Tubulin antibody [EPR16774] (ab179513) at 1/1000 dilution + Human beta I Tubulin recombinant protein at 0.01 µg

**Secondary**

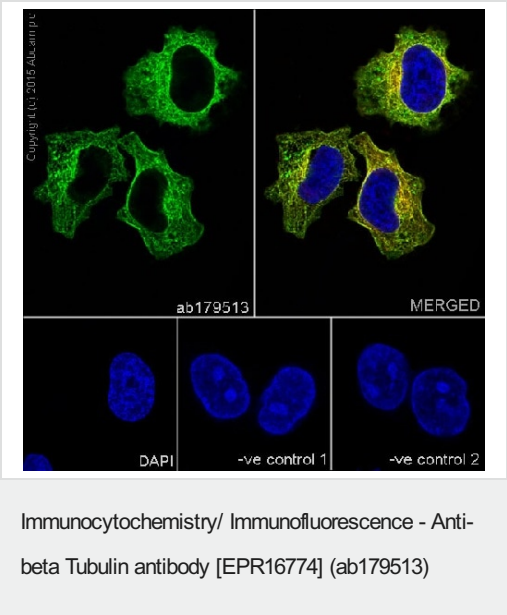
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 50 kDa

**Observed band size:** 50 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

The immunogen of ab179513 has 67% identities with beta I Tubulin. The WB image shows it cross-reacts with beta I Tubulin. Human beta I Tubulin is an in house recombinant protein (aa1-451) with a proprietary tag.

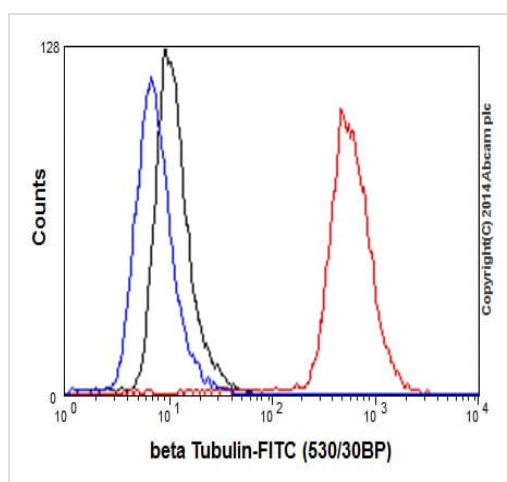


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling beta Tubulin with ab179513 at 1/1000 dilution, followed by anti-rabbit Alexa Fluor® 488 (**ab150077**) secondary antibody at 1/500 dilution (green). Confocal image showing cytoplasmic staining on HeLa cell line. The nuclear counter stain is DAPI (blue). Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution and anti-mouse AlexaFluor® 594 (**ab150120**) at 1/500 dilution (red).

The negative controls are as follows;

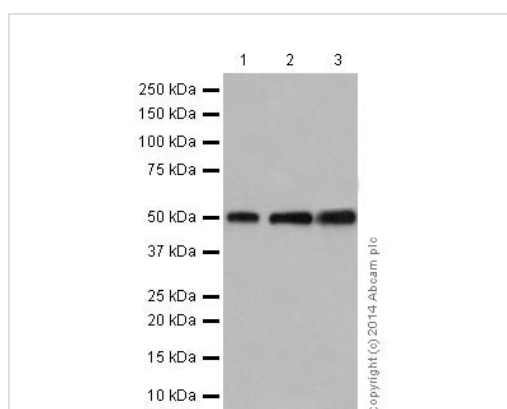
-ve control 1: ab179513 at 1/1000 dilution followed by anti-mouse AlexaFluor® 594 (**ab150120**) at 1/500 dilution.

-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by anti-rabbit Alexa Fluor® 488 (**ab150077**) at 1/500 dilution.



Flow Cytometry (Intracellular) - Anti-beta Tubulin antibody [EPR16774] (ab179513)

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling beta Tubulin with ab179513 at 1/150 dilution (red) compared with a rabbit monoclonal IgG isotype control (black) and a unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.



Western blot - Anti-beta Tubulin antibody [EPR16774] (ab179513)

**All lanes** : Anti-beta Tubulin antibody [EPR16774] (ab179513) at 1/2000 dilution

**Lane 1** : Zebrafish whole lysates

**Lane 2** : Xenopus tropicalis lysates

**Lane 3** : Drosophila whole lysates

Lysates/proteins at 20 µg per lane.

#### Secondary

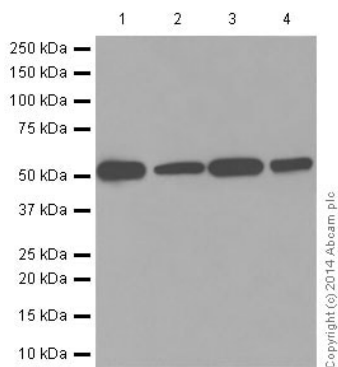
**All lanes** : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 50 kDa

**Observed band size:** 50 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

The amino acid sequence of ab179513 immunogen is identical to those of tubulin beta 2A, 2B, 3, 4A, 4B, 5, 6 and 8 at the same region.



Western blot - Anti-beta Tubulin antibody  
[EPR16774] (ab179513)

**All lanes** : Anti-beta Tubulin antibody [EPR16774] (ab179513) at 1/2000 dilution

**Lane 1** : UMNSAH/DF-1 (Transformed chicken embryonic fibroblast cells) whole cell lysates

**Lane 2** : MDCK (Canine kidney cell line) whole cell lysates

**Lane 3** : MDBK (Bovine kidney cell line) whole cell lysates

**Lane 4** : COS-1 (African green monkey kidney fibroblast-like cell line) whole cell lysates

Lysates/proteins at 20 µg per lane.

### Secondary

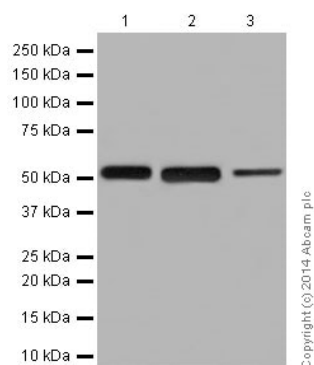
**All lanes** : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 50 kDa

**Observed band size:** 50 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

The amino acid sequence of ab179513 immunogen is identical to those of tubulin beta 2A, 2B, 3, 4A, 4B, 5, 6 and 8 at the same region.



Western blot - Anti-beta Tubulin antibody  
[EPR16774] (ab179513)

**All lanes** : Anti-beta Tubulin antibody [EPR16774] (ab179513) at 1/2000 dilution

**Lane 1** : HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysates

**Lane 2** : Jurkat (Human T cell leukemia cells from peripheral blood) whole cell lysates

**Lane 3** : A431 (Human epidermoid carcinoma) whole cell lysates

Lysates/proteins at 20 µg per lane.

### Secondary

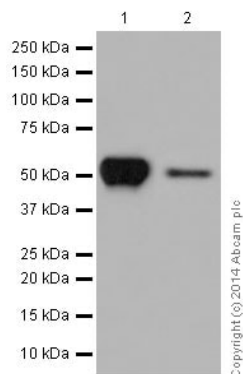
**All lanes** : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 50 kDa

**Observed band size:** 50 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

The amino acid sequence of ab179513 immunogen is identical to those of tubulin beta 2A, 2B, 3, 4A, 4B, 5, 6 and 8 at the same region.



Western blot - Anti-beta Tubulin antibody  
[EPR16774] (ab179513)

**All lanes :** Anti-beta Tubulin antibody [EPR16774] (ab179513) at 1/2000 dilution

**Lane 1 :** Human fetal brain lysates

**Lane 2 :** Human fetal kidney lysates

Lysates/proteins at 10 µg per lane.

#### Secondary

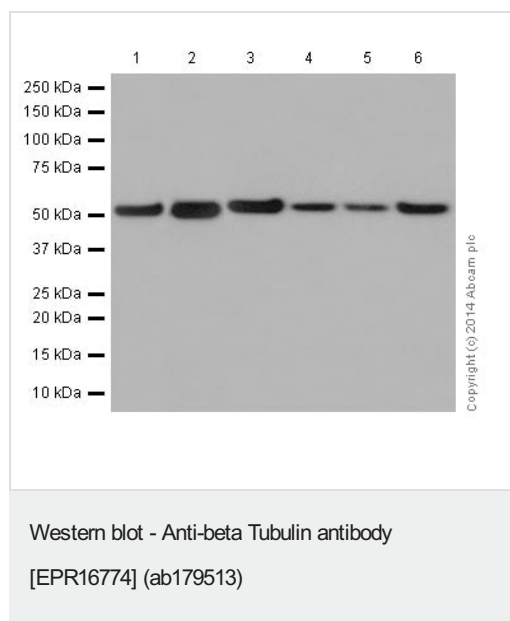
**All lanes :** Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

**Predicted band size:** 50 kDa

**Observed band size:** 50 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

The amino acid sequence of ab179513 immunogen is identical to those of tubulin beta 2A, 2B, 3, 4A, 4B, 5, 6 and 8 at the same region.



**All lanes :** Anti-beta Tubulin antibody [EPR16774] (ab179513) at 1/2000 dilution

**Lane 1 :** Mouse brain lysates

**Lane 2 :** Rat brain lysates

**Lane 3 :** C6 (Rat glial tumor cells) whole cell lysates

**Lane 4 :** RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysates

**Lane 5 :** PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates

**Lane 6 :** NIH/3T3 (Mouse embryo fibroblast cells) whole cell lysates

Lysates/proteins at 10 µg per lane.

### Secondary

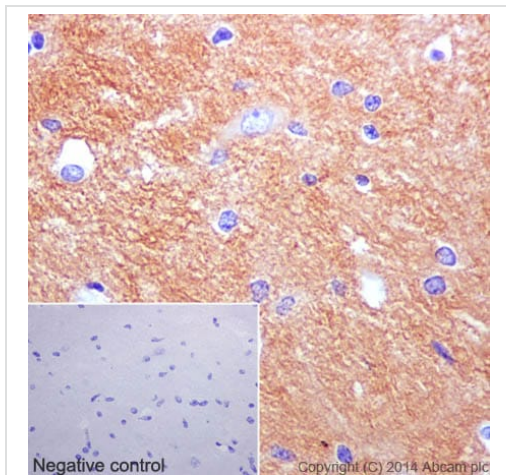
**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 50 kDa

**Observed band size:** 50 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

The amino acid sequence of ab179513 immunogen is identical to those of tubulin beta 2A, 2B, 3, 4A, 4B, 5, 6 and 8 at the same region.

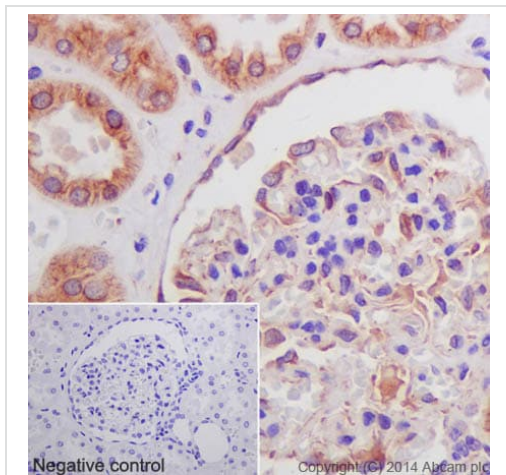


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta Tubulin antibody [EPR16774] (ab179513)

Immunohistochemical analysis of paraffin-embedded Human cerebral cortex tissue labeling beta Tubulin with ab179513 at 1/250 dilution, followed by **Anti-Rabbit HRP (ab97051)** at 1/500 dilution. Cytoplasmic staining on neurons of human cerebral cortex is observed. Counter stained with Hematoxylin.

Negative control: Using PBS instead of primary antibody, secondary antibody is **Anti-Rabbit HRP (ab97051)** at 1/500 dilution.

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



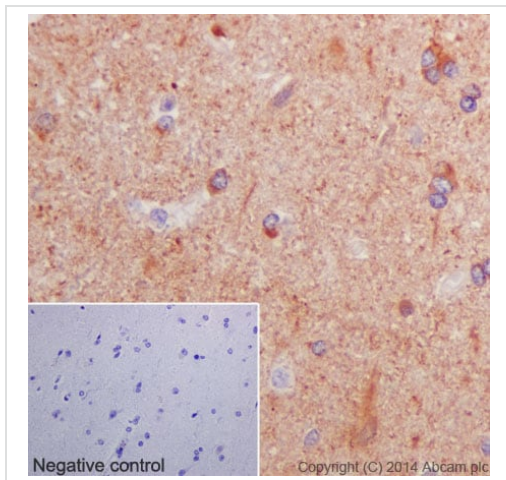
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta Tubulin antibody [EPR16774] (ab179513)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling beta Tubulin with ab179513 at 1/250 dilution, followed by **Anti-Rabbit HRP (ab97051)** at 1/500 dilution. Cytoplasmic staining on tubules and the glomerulus of human kidney is observed. Counter stained with Hematoxylin.

Negative control: Using PBS instead of primary antibody, secondary antibody is **Anti-Rabbit HRP (ab97051)** at 1/500 dilution.

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



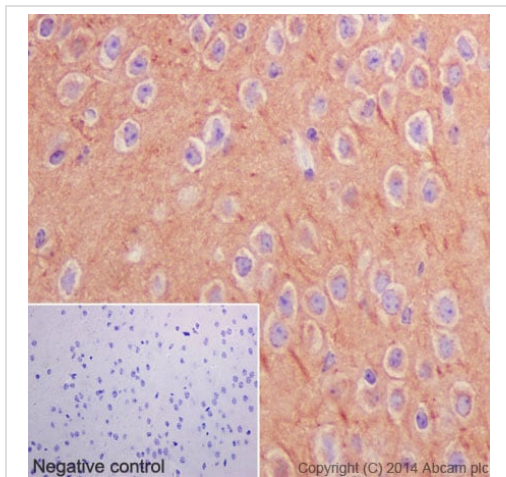


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta Tubulin antibody [EPR16774] (ab179513)

Immunohistochemical analysis of paraffin-embedded Human glioma tissue labeling beta Tubulin with ab179513 at 1/250 dilution, followed by **Anti-Rabbit HRP (ab97051)** at 1/500 dilution. Cytoplasmic staining on human glioma is observed. Counter stained with Hematoxylin.

Negative control: Using PBS instead of primary antibody, secondary antibody is **Anti-Rabbit HRP (ab97051)** at 1/500 dilution.

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

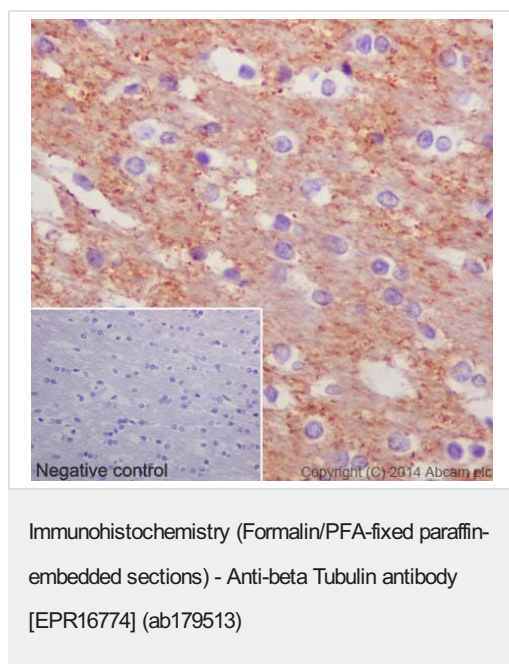


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta Tubulin antibody [EPR16774] (ab179513)

Immunohistochemical analysis of paraffin-embedded Mouse cerebral cortex tissue labeling beta Tubulin with ab179513 at 1/250 dilution, followed by **Anti-Rabbit HRP (ab97051)** at 1/500 dilution. Cytoplasm staining on neurons of mouse cerebral cortex is observed. Counter stained with Hematoxylin.

Negative control: Using PBS instead of primary antibody, secondary antibody is **Anti-Rabbit HRP (ab97051)** at 1/500 dilution.

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







Immunohistochemical analysis of paraffin-embedded Rat cerebral cortex tissue labeling beta Tubulin with ab179513 at 1/250 dilution, followed by **Anti-Rabbit HRP (ab97051)** at 1/500 dilution.

Cytoplasm staining on neurons of rat cerebral cortex is observed. Counter stained with Hematoxylin.

Negative control: Using PBS instead of primary antibody, secondary antibody is **Anti-Rabbit HRP (ab97051)** at 1/500 dilution.

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

Why choose a recombinant antibody?

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 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-beta Tubulin antibody [EPR16774] (ab179513)

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