


## Product datasheet

# HRP Anti-beta Tubulin antibody - Loading Control ab21058

★★★★★ [4 Abreviews](#) [87 References](#) [3 Images](#)

### Overview

---

<b>Product name</b>	HRP Anti-beta Tubulin antibody - Loading Control
<b>Description</b>	HRP Rabbit polyclonal to beta Tubulin - Loading Control
<b>Host species</b>	Rabbit
<b>Conjugation</b>	HRP
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Chicken, Cow, Pig, Xenopus laevis, Chimpanzee, Zebrafish 
<b>Immunogen</b>	Synthetic peptide corresponding to Human beta Tubulin aa 1-100 conjugated to keyhole limpet haemocyanin. (Peptide available as <a href="#">ab20775</a> )
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&amp;As</p>

### Properties

---

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: PBS, 1% BSA, 30% Glycerol (glycerin, glycerine)
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab21058 in the following tested applications.

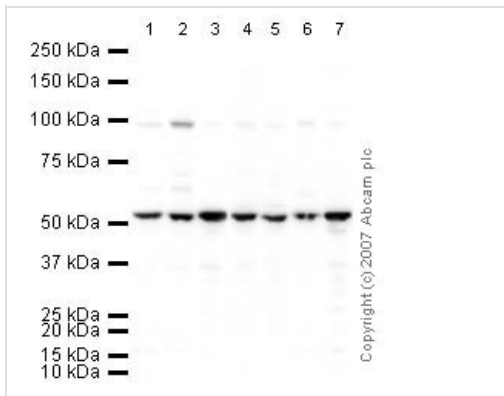
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (4)	1/1000. Detects a band of approximately 50 kDa (predicted molecular weight: 50 kDa).
IHC-P		1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	Ubiquitously expressed with highest levels in spleen, thymus and immature brain.
<b>Involvement in disease</b>	Cortical dysplasia, complex, with other brain malformations 6 Skin creases, congenital symmetric circumferential, 1
<b>Sequence similarities</b>	Belongs to the tubulin family.
<b>Domain</b>	The highly acidic C-terminal region may bind cations such as calcium.
<b>Post-translational modifications</b>	<p>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).</p> <p>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.</p> <p>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.</p>
<b>Cellular localization</b>	Cytoplasm, cytoskeleton.

## Images



Western blot - HRP Anti-beta Tubulin antibody - Loading Control (ab21058)

**All lanes** : HRP Anti-beta Tubulin antibody - Loading Control (ab21058) at 1 µg/ml

**Lane 1** : NIH/3T3 whole cell lysate (**ab7179**)

**Lane 2** : MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

**Lane 3** : Brain (Mouse) Tissue Lysate

**Lane 4** : Spinal Cord (Mouse) Tissue Lysate

**Lane 5** : Ovary (Mouse) Tissue Lysate - normal tissue

**Lane 6** : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

**Lane 7** : Brain (Rat) Tissue Lysate - normal tissue

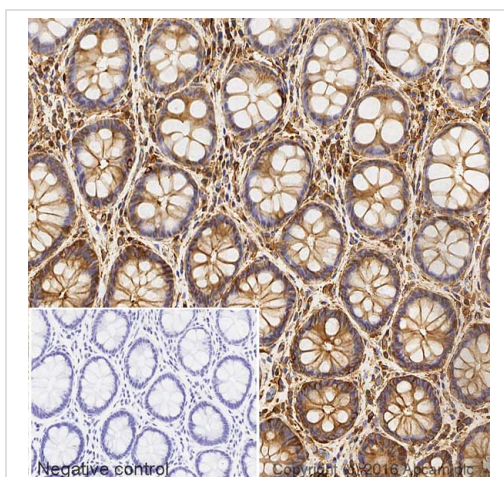
Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 50 kDa

**Observed band size:** 51 kDa

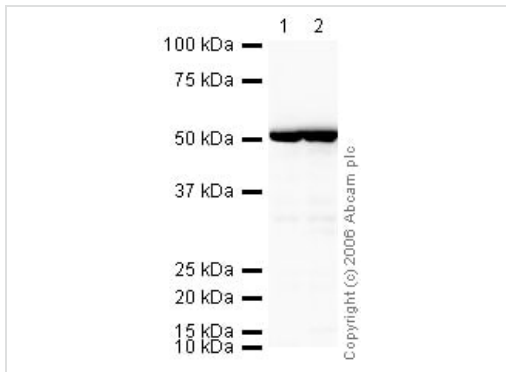


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-beta Tubulin antibody - Loading Control (ab21058)

IHC image of beta Tubulin staining in a section of formalin-fixed paraffin-embedded normal human colon tissue performed on a Leica BOND™. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab21058, 1/100 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*\*Tissue obtained from the Human Research Tissue Bank,*



Western blot - HRP Anti-beta Tubulin antibody -  
Loading Control (ab21058)

**All lanes** : HRP Anti-beta Tubulin antibody - Loading Control  
(ab21058) at 1/1000 dilution

**Lane 1** : HeLa (Human epithelial carcinoma cell line) Whole Cell  
Lysate

**Lane 2** : A-431 whole cell lysate (**ab7909**)

Lysates/proteins at 20 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 50 kDa

**Observed band size:** 50 kDa

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

### Our Abpromise to you: Quality guaranteed and expert technical support

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors