# abcam

### Product datasheet

## Anti-beta Tubulin antibody [EP1331Y] - Microtubule Marker ab52901



★★★★ <u>12 Abreviews</u> 40 References 5 图像

#### 概述

产品名称 Anti-beta Tubulin抗体[EP1331Y] - Microtubule Marker

描述 兔单克隆抗体[EP1331Y] to beta Tubulin - Microtubule Marker

宿主 Rabbit

经测试应用 适用于: WB, IHC-P

种属反应性 与反应: Mouse, Rat, Human

预测可用于: Zebrafish 🔷

免疫原 Synthetic peptide within Human beta Tubulin aa 400 to the C-terminus (C terminal). The exact

> sequence is proprietary. Database link: P07437

阳性对照 WB: PC12 and HeLa whole cell lysate (ab150035) and mouse brain, rat brain, mouse spinal cord

and rat spinal cord tissue lysates. IHC-P: Human gastric carcinoma. ICC/IF: HeLa cells.

常规说明 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**.

#### 性能

形式 Liquid

存放说明 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

存储溶液 pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA

纯度 Protein A purified

**克隆** 单克隆

**克隆编号** EP1331Y

**同种型** IgG

#### 应用

#### The Abpromise guarantee Abpromise 承诺保证使用ab52901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
WB	* * * * * <b>(6)</b>	1/20000. Detects a band of approximately 50 kDa (predicted molecular weight: 50 kDa).
IHC-P	**** <u>*</u> (2)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

#### 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 TTLL10 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,

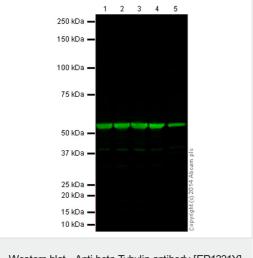
and reciprocally. The precise function of monoglycylation is still unclear.

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.

#### 图片



Western blot - Anti-beta Tubulin antibody [EP1331Y]

- Microtubule Marker (ab52901)

**All lanes :** Anti-beta Tubulin antibody [EP1331Y] - Microtubule Marker (ab52901) at 1/20000 dilution

Lane 1: Brain (Mouse) Tissue Lysate

Lane 2: Brain (Rat) Tissue Lysate

Lane 3: Spinal Cord (Mouse) Tissue Lysate

Lane 4: Spinal Cord (Rat) Tissue Lysate

Lane 5: PC12 (Rat adrenal pheochromocytoma cell line) Whole

Cell Lysate

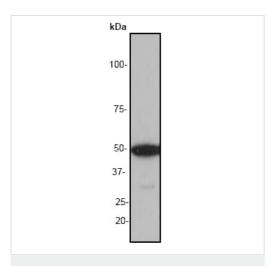
Lysates/proteins at 20 µg per lane.

#### **Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 790) (ab175781) at 1/10000 dilution

Predicted band size: 50 kDa
Observed band size: 52 kDa

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using Licor blocking buffer before being incubated with ab52901 overnight at 4°C. Antibody binding was detected using <a href="mailto:ab175781">ab175781</a> at a 1:10,000 dilution for 1hr at room temperature and then imaged using the Licor Odyssey CLx.



Western blot - Anti-beta Tubulin antibody [EP1331Y]

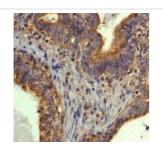
- Microtubule Marker (ab52901)

Anti-beta Tubulin antibody [EP1331Y] - Microtubule Marker (ab52901) at 1/20000 dilution + HeLa cell lysate at 10  $\mu$ g

#### Secondary

Goat anti-rabbit HRP-conjugated at 1/2000 dilution

**Predicted band size:** 50 kDa **Observed band size:** 50 kDa

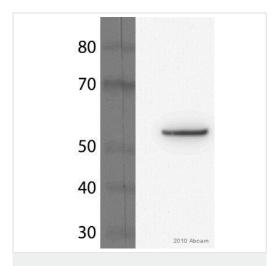


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-beta Tubulin antibody

[EP1331Y] - Microtubule Marker (ab52901)

ab52901 at 1/250 dilution staining beta Tubulin in human gastric carcinoma by Immunohistochemsitry, Paraffin embedded tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-beta Tubulin antibody [EP1331Y]

- Microtubule Marker (ab52901)

This image is courtesy of an anonymous Abreview

Anti-beta Tubulin antibody [EP1331Y] - Microtubule Marker (ab52901) at 1/1000 dilution (in PBS +0.5% Tween20 for 2 hours at 23°C) + 293 human embryonic kidney whole cell lysate at 25 µg

#### **Secondary**

An HRP-conjugated Goat anti-rabbit lgG polyclonal at 1/10000 dilution

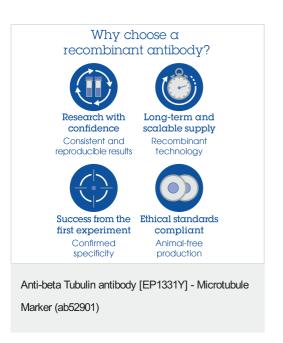
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 50 kDa **Observed band size:** 55 kDa

Exposure time: 45 seconds

Blocking Step: 5% Milk for 1 hour at 23°C



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