abcam

Product datasheet

Anti-alpha Tubulin antibody - Loading Control ab4074

★★★★★ 28 Abreviews 385 References 5 图像

概述

产品名称	Anti-alpha Tubulin抗体- Loading Control
描述	**兔多克隆抗体**to alpha Tubulin - Loading Control
宿主	Rabbit
特异性	This antibody detects a single band in cell lines, corresponding to alpha tubulin.
经测试应用	**适用于:** WB, ICC/IF
种属反应性	**与反应:** Mouse, Rat, Chicken, Cow, Human, Chinese hamster **预测可用于:** Pig, Xenopus laevis, Chimpanzee, Monkey, Zebrafish
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: HeLa, NIH 3T3, and PC12 cell lysates. ICC/IF: HeLa cells. IHC-P: Human endometrium tissue.
常规说明	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. 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&As

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 or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
纯度	Immunogen affinity purified

Primary antibody说明	This antibody makes an excellent loading control.
克隆	**多克隆**
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用**ab4074**于以下的**经测试应用

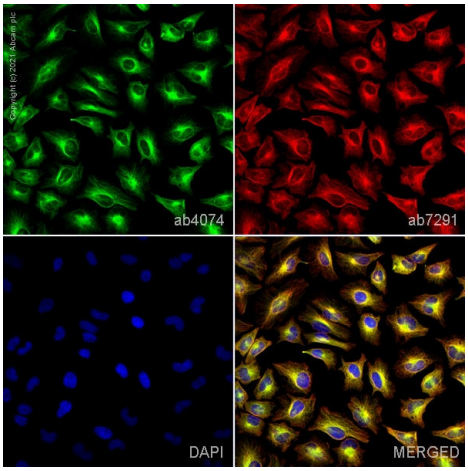
"应用说明"**部分 下显示的**仅为**推荐的起始稀释度**;实际**最佳的稀释度**/浓**度**应**由使用者检定。**

应用	Ab评论	说明
WB	★★★★★ (18)	Use a concentration of 1 µg/ml. Detects a band of approximately 50 kDa (predicted molecular weight: 50 kDa). Can be blocked with alpha Tubulin peptide (**ab23537**).
ICC/IF	★★★★★ (9)	Use a concentration of 1 µg/ml.

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.
序列相似性	Belongs to the tubulin family.
翻译后修饰	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 TTLL10 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.
细胞定位	Cytoplasm > cytoskeleton.

图片

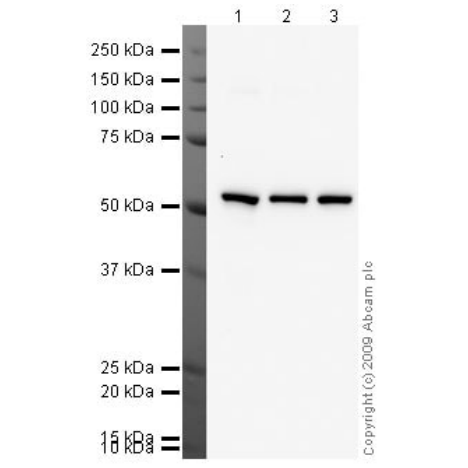


Immunocytochemistry/ Immunofluorescence - Anti-alpha Tubulin antibody - Loading Control (ab4074)

ab4074 staining alpha Tubulin in HeLa cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at 4°C with **ab4064** at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Also suitable in cells fixed with 100% methanol (5 min).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Western blot - Anti-alpha Tubulin antibody - Loading Control (ab4074)

All lanes : Anti-alpha Tubulin antibody - Loading Control (ab4074) at 1 µg/ml

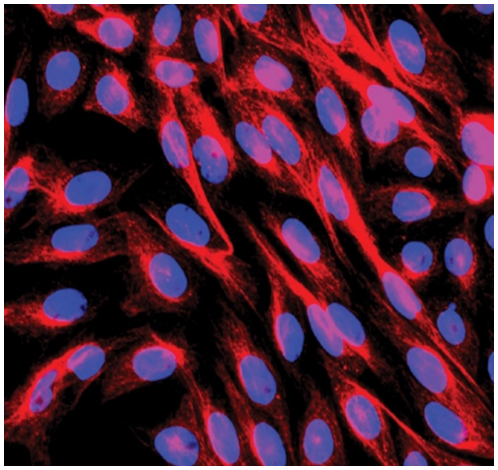
Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate (**ab27252**)
Lane 2 : NIH/3T3 (Mouse) Whole Cell Lysate (**ab52956**)
Lane 3 : PC-12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate (**ab50957**)

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) (**ab65484**) at 1/3000 dilution

Performed under reducing conditions.

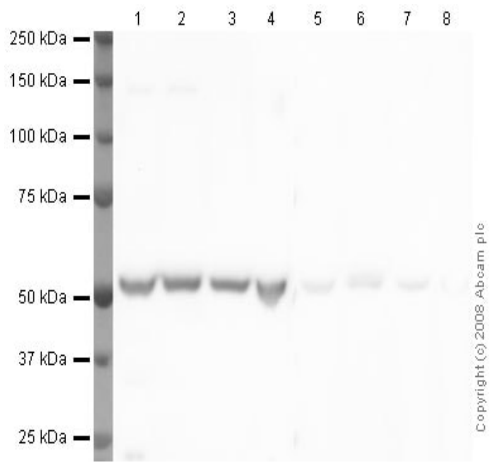
Predicted band size: 50 kDa



Immunocytochemistry/ Immunofluorescence - Anti-alpha Tubulin antibody - Loading Control (ab4074)

Image from PLoS One. 2014; 9(10): e109590. Fig 5o,doi: 10.1371/journal.pone.0109590 Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

Immunocytochemistry of *Sis*NPFR-C6E8 cell line. Cells were prefixed in freshly prepared 4% paraformaldehyde (PFA) in F12 K culture medium with 10% fetal bovine serum and Geneticin. Fixed cells were permeabilized in PBST (0.25% Triton X-100 in PBS) for 5 min and blocked at 4°C overnight in 5% normal goat serum. The cells were then incubated at 4°C overnight with ab4074 (1:50). Cover slips were placed onto slides and mounted with VectaShield containing DAPI.



Western blot - Anti-alpha Tubulin antibody - Loading Control (ab4074)

All lanes : Anti-alpha Tubulin antibody - Loading Control (ab4074) at 1 µg/ml

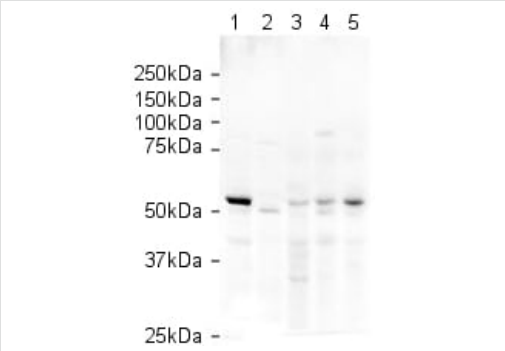
Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate (**ab27252**)
Lane 2 : HEK-293 (Human) Whole Cell Lysate (**ab52256**)
Lane 3 : NIH/3T3 whole cell lysate (**ab7179**)
Lane 4 : PC-12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate (**ab50957**)
Lane 5 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate (**ab27252**) with Human alpha Tubulin peptide (**ab23537**) at 1 µg/ml
Lane 6 : HEK-293 (Human) Whole Cell Lysate (**ab52256**) with Human alpha Tubulin peptide (**ab23537**) at 1 µg/ml
Lane 7 : NIH/3T3 whole cell lysate (**ab7179**) with Human alpha Tubulin peptide (**ab23537**) at 1 µg/ml
Lane 8 : PC-12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate (**ab50957**) with Human alpha Tubulin peptide (**ab23537**) at 1 µg/ml

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) (**ab65484**) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 50 kDa



Western blot - Anti-alpha Tubulin antibody - Loading Control (ab4074)

All lanes : Anti-alpha Tubulin antibody - Loading Control (ab4074) at 1 µg/ml

Lane 1 : Mouse 3T3 lysate
Lane 2 : Rat liver lysate
Lane 3 : Cow cell lysate
Lane 4 : Chicken cell lysate
Lane 5 : CHO lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab6721**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

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

Exposure time: 30 seconds

ab4074 cross-reacts strongly with Mouse 3T3 lysate and shows weak cross-reactivity with Rat liver, Cow, Chicken and CHO lysates.

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