abcam

Product datasheet

Anti-beta Tubulin antibody [1E1-E8-H4] - Microtubule Marker ab131205

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Overview

Product name	Anti-beta Tubulin antibody [1E1-E8-H4] - Microtubule Marker
Description	Mouse monoclonal [1E1-E8-H4] to beta Tubulin - Microtubule Marker
Host species	Mouse
Tested applications	**Suitable for:** ICC/IF, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human, African green monkey
Immunogen	Recombinant fragment corresponding to Human beta Tubulin. Database link: **P07437**
Positive control	A431, HeLa and Jurkat cell lysates.
General notes	This product was changed from ascites to tissue culture supernatant on 17.08.2018. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.03% Proclin 300 Constituent: 50% Glycerol
Purity	Concentrated Culture Supernatant
Clonality	Monoclonal
Clone number	1E1-E8-H4

Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab131205 in the following tested applications.

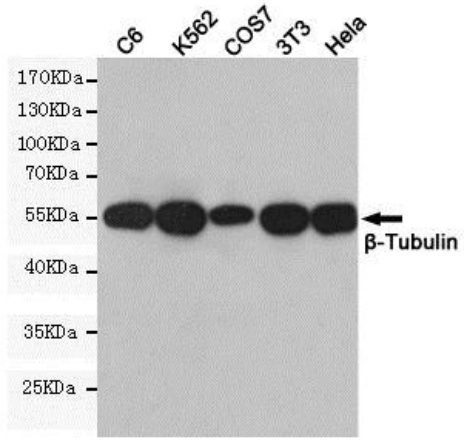
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★ (3)	1/300.
WB	★★★★★ (3)	1/5000. Detects a band of approximately 49 kDa (predicted molecular weight: 49 kDa).

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

Images

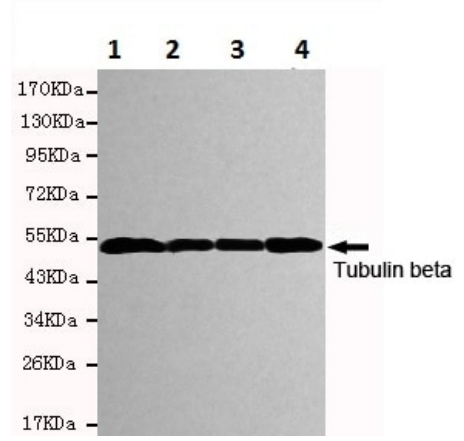


Western blot - Anti-beta Tubulin antibody [1E1-E8-H4] - Microtubule Marker (ab131205)

All lanes : Anti-beta Tubulin antibody [1E1-E8-H4] - Microtubule Marker (ab131205) at 1/5000 dilution

Lane 1 : C6 Cell lysate
Lane 2 : K562 Cell lysate
Lane 3 : COS7 Cell lysate
Lane 4 : 3T3 Cell lysate
Lane 5 : HeLa Cell lysate

Predicted band size: 49 kDa



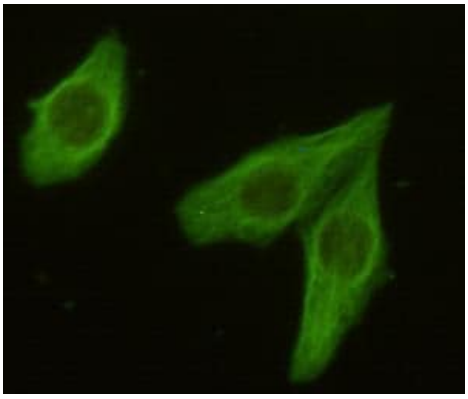
Western blot - Anti-beta Tubulin antibody [1E1-E8-H4] - Microtubule Marker (ab131205)

All lanes : Anti-beta Tubulin antibody [1E1-E8-H4] - Microtubule Marker (ab131205) at 1/500 dilution

Lane 1 : COS7 cell lysate
Lane 2 : LNCap cell lysate
Lane 3 : MCF7 cell lysate
Lane 4 : C2C12 cell lysate

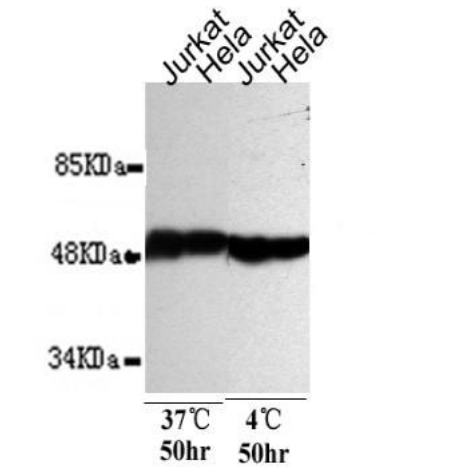
Predicted band size: 49 kDa

This image was produced with antibody produced in ascites.



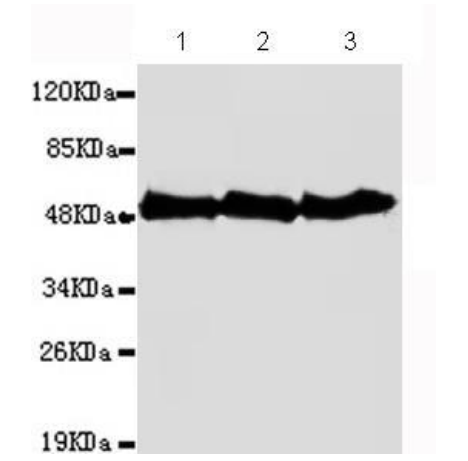
Immunocytochemistry/ Immunofluorescence - Anti-beta Tubulin antibody [1E1-E8-H4] - Microtubule Marker (ab131205)

Immunocytochemistry stain of Hela using ab131205(1:300). This image was produced with antibody produced in ascites.



Western blot - Anti-beta Tubulin antibody [1E1-E8-H4] - Microtubule Marker (ab131205)

ab131205 stability test under 37ºC for 50 hours compared to 4°C for 50 hours. This image was produced with antibody produced in ascites.



Western blot - Anti-beta Tubulin antibody [1E1-E8-H4] - Microtubule Marker (ab131205)

All lanes : Anti-beta Tubulin antibody [1E1-E8-H4] - Microtubule Marker (ab131205) at 1/1000 dilution

Lane 1 : A431 cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : Jurkat cell lysate

Predicted band size: 49 kDa
Observed band size: 49 kDa

This image was produced with antibody produced in ascites.

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

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