# abcam

# Product datasheet

# Anti-Tubulin antibody [EPR13796] - Loading Control ab210797



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Overview

Product name Anti-Tubulin antibody [EPR13796] - Loading Control

**Description** Rabbit monoclonal [EPR13796] to Tubulin - Loading Control

Host species Rabbit

**Specificity** ab210797 recognizes Tubulin alpha-1 and alpha-3 chains.

Tested applications Suitable for: WB

Species reactivity Reacts with: Saccharomyces cerevisiae

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: Saccharomyces cerevisiae whole cell lysates; full length recombinant protein

Saccharomyces cerevisiae tubulin alpha-3 chain.

**General notes**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<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**<sup>®</sup> **patents**.

**Properties** 

Form Liquid

Storage instructions 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.

Storage buffer pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

Purity Protein A purified

**Clonality** Monoclonal

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Clone number EPR13796

**Isotype** IgG

#### **Applications**

#### The Abpromise guarantee

Our Abpromise guarantee covers the use of ab210797 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		1/1000. Detects a band of approximately 50 kDa (predicted molecular weight: 50 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.

Sequence similarities

Belongs to the tubulin family.

Post-translational modifications

Undergoes a tyrosination/detyrosination cycle, the cyclic removal and re-addition of a C-terminal tyrosine residue by the enzymes tubulin tyrosine carboxypeptidase (TTCP) and tubulin tyrosine

ligase (TTL), respectively.

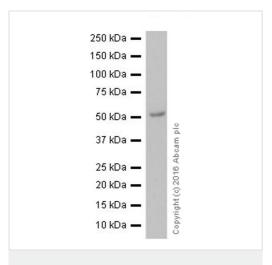
Some glutamate residues at the C-terminus are polyglutamylated. This modification occurs exclusively on glutamate residues and results in polyglutamate chains on the gamma-carboxyl group. Also monoglycylated but not polyglycylated due to the absence of functional TTLL10 in human. Monoglycylation is mainly 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-tubulins 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.

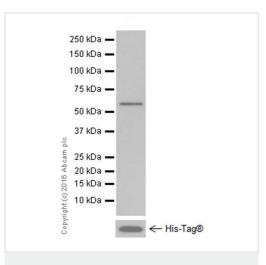
**Cellular localization** 

Cytoplasm > cytoskeleton.

# **Images**



Western blot - Anti-Tubulin antibody [EPR13796] - Loading Control (ab210797)



Western blot - Anti-Tubulin antibody [EPR13796] - Loading Control (ab210797)

Anti-Tubulin antibody [EPR13796] - Loading Control (ab210797) at 1/1000 dilution + Saccharomyces cerevisiae whole cell lysates at  $10~\mu g$ 

## Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

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

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

Anti-Tubulin antibody [EPR13796] - Loading Control (ab210797) at 1/1000 dilution + Full length recombinant protein Saccharomyces cerevisiae tubulin alpha-3 chain at 0.01 µg

#### Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

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

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

Full length recombinant protein *Saccharomyces cerevisiae* tubulin alpha-3 chain contains aa1-445 with a His-Tag® was made in house.



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

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