Datasheet for ABIN964563

# anti-alpha Tubulin antibody (C-Term)

13 Images | 6 Publications

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## Overview

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|---|---|
| Quantity: | 100 µg |
| Target: | alpha Tubulin (TUBA1) |
| Binding Specificity: | C-Term |
| Reactivity: | Human, Mouse, Rat, Chicken, Cow |
| Host: | Mouse |
| Clonality: | Monoclonal |
| Conjugate: | This alpha Tubulin antibody is un-conjugated |
| Application: | Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Fluorescence Microscopy (FM) |

## Product Details

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| Immunogen: | Anti-Tubulin Loading Control Antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues near the C terminal end of of human alpha tubulin protein. |
| Clone: | 17H11-F10 |
| Isotype: | IgG1 kappa |
| Specificity: | Anti-Tubulin Loading Control Antibody was purified Protein A chromatography. This Loading Control antibody is directed against alpha tubulin. A BLAST analysis was used to suggest antibody reactivity with alpha tubulin from a wide range of organisms, including avian, mammalian aquatic, parasitic and alga sources based on 100% homology for the immunogen sequence. Cross reactivity will occur with all isoforms of alpha tubulin. Such broad reactivity makes this antibody useful as an excellent loading control. |

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## Product Details

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| Cross-Reactivity: | Mouse (Murine), Rat (Rattus), Chicken, Sheep (Ovine) |
| Characteristics: | Microtubules are involved in a wide variety of cellular activities ranging from mitosis and transport events to cell movement and the maintenance of cell shape. Tubulin itself is a globular protein consisting of two polypeptides (alpha and beta tubulin). Alpha and beta tubulin dimers are assembled to 13 protofilaments that form a microtubule of 22-nm diameter. Tyrosine ligase adds a C-terminal tyrosine to monomeric alpha tubulin. Assembled microtubules can again be detyrosinated by a cytoskeleton-associated carboxypeptidase. Detyrosinated alpha tubulin is referred to as Glu-tubulin. Another post-translational modification of detyrosinated alpha tubulin is C-terminal polyglutamylation, which is characteristic of microtubules in neuronal cells and the mitotic spindle. This antibody makes an excellent loading control. |
| Sterility: | Sterile filtered |

## Target Details

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|---|---|
| Target: | alpha Tubulin (TUBA1) |
| Alternative Name: | Alpha-Tubulin (TUBA1 Products) |
| Background: | Microtubules are involved in a wide variety of cellular activities ranging from mitosis and transport events to cell movement and the maintenance of cell shape. Tubulin itself is a globular protein consisting of two polypeptides (alpha and beta tubulin). Alpha and beta tubulin dimers are assembled to 13 protofilaments that form a microtubule of 22-nm diameter. Tyrosine ligase adds a C-terminal tyrosine to monomeric alpha tubulin. Assembled microtubules can again be detyrosinated by a cytoskeleton-associated carboxypeptidase. Detyrosinated alpha tubulin is referred to as Glu-tubulin. Another post-translational modification of detyrosinated alpha tubulin is C-terminal polyglutamylation, which is characteristic of microtubules in neuronal cells and the mitotic spindle. This antibody makes an excellent loading control.<br>Synonyms: Tubulin alpha-1B chain, Tubulin alpha-ubiquitous chain, Alpha-tubulin ubiquitous Tubulin K-alpha-1, TUBA1B, tubulin loading control |
| Gene ID: | 17986283 |
| UniProt: | P68363 |
| Pathways: | Microtubule Dynamics |

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## Application Details

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| Application Notes: | Anti-Tubulin Antibody has been tested for use in ELISA, immunohistochemistry, immunofluorescence microscopy and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~50 kDa in size corresponding to alpha tubulin by western blotting in most cell lysates or extracts. |
| Comment: | Gene Name: TUBA1B |
| Restrictions: | For Research Use only |

## Handling

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|---|---|
| Format: | Liquid |
| Concentration: | 1.0 mg/mL |
| Buffer: | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | 4 °C/-20 °C |
| Storage Comment: | Store vial at 4 °C prior to restoration. For extended storage aliquot contents and freeze at -20 °C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4 °C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. |
| Expiry Date: | 12 months |

## Publications

| | |
|---|---|
| Product cited in: | Tretter, Ross, Dordai, Desiderio: "Mimicry of pre-B cell receptor signaling by activation of the tyrosine kinase Blk." in: **The Journal of experimental medicine**, Vol. 198, Issue 12, pp. 1863-73, (2003) (PubMed).<br><br>There are more publications referencing this product on: Product page |

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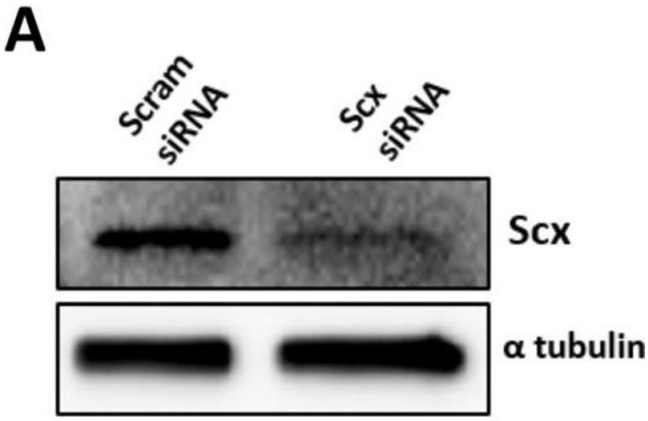
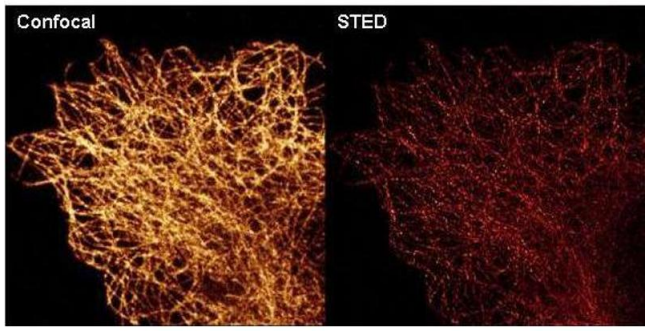


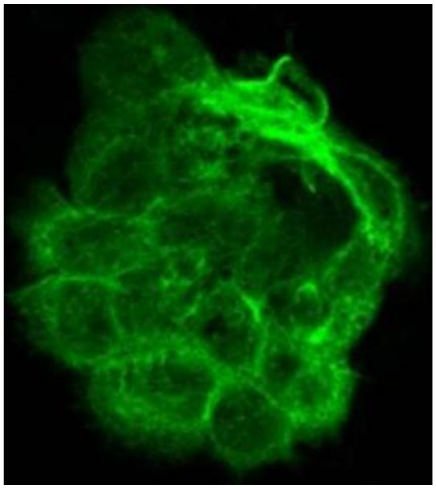

## Western Blotting

**Image 1.** Scx is required for the expression of Fmod and Adamtsl2. (A) C3H10T1/2 cells were transduced with a scrambled siRNA control (Scram) or Scx specific siRNA for 24 h. Representative immunoblot showing Scx protein. α-tubulin is used as a loading control. (B) Quantification of Scx immunoblots comparing Scram transduced and Scx siRNA transduced cells. Protein levels were normalized to α tubulin and quantified using ImageJ and GraphPad Prism, n=3, (*) indicates significance, p<0.05. (C) Scx mRNA levels were determined by qPCR in Scram transduced and Scx siRNA transduced cells. Data was normalized to Hprt mRNA and analyzed using REST software, n=6, (*) indicates significance, p<0.05. (D) RNA was collected from cells that were transduced with Scram siRNA or Scx siRNA for 24 h and subsequently either left untreated (-) or treated with TGFβ1(+) for 8 h. Fmod and Adamtsl2 mRNA levels were determined by qPCR. mRNA levels were normalized to Hprt. qPCR data was analyzed by REST software, n=6, (*) indicates significance, p<0.05. Detailed results from qPCR REST analysis are shown in Tables S11, S12. Immunoblots were cropped for clarity. Examples of uncropped blots are found in Supplementary Figures. - figure provided by CiteAb. Source: PMID33288795




## Immunofluorescence

**Image 2.**



**Immunofluorescence**

**Image 3.** Immunofluorescence of Mouse monoclonal anti-Alpha Tubulin antibody. Cell Type: A431 cells Fixation: 4% paraformaldehyde 10 min Permeablization: 0.5% Triton X 30 min Primary Ab: lot 28977 1:250 72 hours 4°C Secondary Ab: 610-141-121 lot 21286 1:1000 overnight 4°C

Please check the product details page for more images. Overall 13 images are available for ABIN964563.

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