**α-Tubulin Antibody**

For Research Use Only. Not For Use In Diagnostic Procedures.

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<th>Applications</th>
<th>Species Cross-Reactivity*</th>
<th>Molecular Wt.</th>
<th>Source</th>
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<td>W, IHC-P, IF-IC, F</td>
<td>H, M, R, Mk, B, Dr, (X)</td>
<td>52 kDa</td>
<td>Rabbit **</td>
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**Background:** The cytoskeleton consists of three types of cytosolic fibers: microtubules, microfilaments (actin filaments), and intermediate filaments. Globular tubulin subunits comprise the microtubule building block, with αβ-tubulin heterodimers forming the tubulin subunit common to all eukaryotic cells. γ-tubulin is necessary to nucleate polymerization of tubulin subunits to form microtubule polymers. Many cell movements are mediated by microtubule action, including the beating of cilia and flagella, cytoplasmic transport of membrane vesicles, chromosome alignment during meiosis/mitosis, and nerve-cell axon migration. These movements result from competitive microtubule polymerization and depolymerization or through the actions of microtubule motor proteins (1).

**Specificity/Sensitivity:** The α-Tubulin Antibody detects endogenous levels of total α-tubulin protein, and does not cross-react with recombinant β-tubulin.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human α-tubulin. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**

**Recommended Antibody Dilutions:**
- Western Blotting: 1:1000
- Immunohistochemistry (Paraffin): 1:50
- **IHC protocol:** Unmasking buffer/Antibody diluent Citrate/TBST-5%NGS
- Immunofluorescence (IF-IC): 1:25
- Flow Cytometry: 1:25

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

**Entrez-Gene ID #** 10376
**Swiss-Prot Acc. #** P68363

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Western blot analysis of extracts from CAD and C6 cells, using α-Tubulin Antibody.

Western blot analysis of recombinant α-tubulin and β-tubulin GST-fusion proteins, and extracts from CAD cells, using α-Tubulin Antibody (left), β-Tubulin Antibody #2146 (middle) and GST Antibody #2622 (right).

**IMPORTANT:** For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
α-Tubulin

Confocal immunofluorescent analysis of NIH/3T3 cells, using α-Tubulin Antibody (green). Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red). Blue pseudocolor = DRAQ5™ (fluorescent DNA dye).

Flow cytometric analysis of C6 cells, using α-Tubulin Antibody (blue) compared to a nonspecific negative control antibody (red).

Immunohistochemical analysis of paraffin-embedded human breast carcinoma, showing cytoplasmic localization using α-Tubulin Antibody.

Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using α-Tubulin Antibody in the presence of control peptide (left) or antigen-specific peptide (right).

Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using α-Tubulin Antibody.


Immunohistochemical analysis of paraffin-embedded human colon carcinoma, using α-Tubulin Antibody.