Alpha-Tubulin Antibody  
Rabbit Monoclonal Antibody  
Catalog # AJ1034a

**Specification**

**Alpha-Tubulin Antibody - Product Information**

<table>
<thead>
<tr>
<th>Application</th>
<th>IF, IHC, WB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Accession</td>
<td>P68363</td>
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<tr>
<td>Reactivity</td>
<td>Human, Mouse, Rat</td>
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<td>Host</td>
<td>Rabbit</td>
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<tr>
<td>Clonality</td>
<td>Monoclonal</td>
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<tr>
<td>Clone Names</td>
<td>EP1332Y</td>
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<tr>
<td>Calculated MW</td>
<td>50152</td>
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</tbody>
</table>

**Gene ID** 10376

**Other Names**
Tubulin alpha-1B chain, Alpha-tubulin ubiquitous, Tubulin K-alpha-1, Tubulin alpha-ubiquitous chain, TUBA1B

**Target/Specificity**
A synthetic peptide corresponding to residues near the N-term of human ?-Tubulin was used as immunogen.

**Dilution**
- IHC: 1:250–500
- WB: 1:50000–200000

**Format**
50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol, 0.01% sodium azide and 0.05% BSA.

**Storage**
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
Alpha-Tubulin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Alpha-Tubulin Antibody - Protein Information**

**Name** TUBA1B

**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.

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C. Immunofluorescent staining of HeLa cells using anti- alpha-Tubulin RabMAb (Cat. #AJ1034a)

B. Immunohistochemical analysis of paraffin-embedded human gastric carcinoma using anti- alpha-Tubulin RabMAb (Cat. #AJ1034a).

A. Western blot analysis on HeLa cell lysate using anti- alpha-Tubulin RabMAb (Cat. #AJ1034a), dilution 1:50,000.
Cellular Location
Cytoplasm, cytoskeleton.

Alpha-Tubulin Antibody - Protocols
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytometry
- Cell Culture

Alpha-Tubulin Antibody - Background
Microtubules are essential parts in eukaryotic cell structures, transportation, and mitosis. It consists mainly of 2 soluble protein subunits, alpha and beta tubulin. Beta tubulin binds to alpha tubulin to form tubulin heterodimer which is post-translationally modified (1). The tubulin dimer complex binds to GTP and assembles onto the positive ends of microtubules. After incorporation into the microtubules, bound GTP is hydrolyzed by beta tubulin. The stability of the dimer in the microtubules is depended on presence of beta tubulin, where dimer with GTP bound beta-tubulin is stable to microtubule incorporation (2). For both type of tubulin, the carboxy-terminal tail is post-translationally modified to regulate associated protein binding at microtubule surface (3). A mutation on alpha tubulin has been linked to abnormal neuronal migration and neurodevelopmental disorders in humans (4).

Alpha-Tubulin Antibody - References

Alpha-Tubulin Antibody - Citations
- miR-17-92 functions as an oncogene and modulates NF-κB signaling by targeting TRAF3 in MGC-803 human gastric cancer cells.
- The NF-κB subunit RelB regulates the migration and invasion abilities and the radio-sensitivity of prostate cancer cells.
- miR-17-92 plays an oncogenic role and conveys chemo-resistance to cisplatin in human prostate cancer cells.
- XPC deficiency is related to APE1 and OGG1 expression and function.
- The ubiquitin ligase CHIP inactivates NF-κB signaling and impairs the ability of migration and invasion in gastric cancer cells.