

**TUBB3 / Tubulin Beta 3 Antibody (aa436-450)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS13917****Specification**

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**TUBB3 / Tubulin Beta 3 Antibody (aa436-450) - Product Information**

Application	IHC
Primary Accession	<a href="#">O13509</a>
Reactivity	Human, Monkey, Pig, Bovine, Dog
Host	Mouse
Clonality	Monoclonal
Calculated MW	50kDa KDa

**TUBB3 / Tubulin Beta 3 Antibody (aa436-450) - Additional Information****Gene ID** 10381**Other Names**

Tubulin beta-3 chain, Tubulin beta-4 chain, Tubulin beta-III, TUBB3, TUBB4

**Target/Specificity**

Recognizes human neuronal specific beta3 tubulin. Species cross-reactivity: Mouse, rat and bovine. Broad species cross-reactivity predicted based on conservation of immunogen sequence.

**Reconstitution & Storage**

May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for at least 12months.

**Precautions**

TUBB3 / Tubulin Beta 3 Antibody (aa436-450) is for research use only and not for use in diagnostic or therapeutic procedures.

**TUBB3 / Tubulin Beta 3 Antibody (aa436-450) - Protein Information****Name** TUBB3**Synonyms** TUBB4**Function**

Tubulin is the major constituent of microtubules, a cylinder consisting of laterally associated linear protofilaments composed of alpha- and beta-tubulin heterodimers (PubMed:&lt;a href="http://www.uniprot.org/citations/34996871" target="\_blank"&gt;34996871&lt;/a&gt;). Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms (PubMed:&lt;a href="http://www.uniprot.org/citations/34996871" target="\_blank"&gt;34996871&lt;/a&gt;). Below the cap, tubulin dimers are in GDP-bound state, owing to GTPase activity of alpha- tubulin (PubMed:&lt;a href="http://www.uniprot.org/citations/34996871" target="\_blank"&gt;34996871&lt;/a&gt;). TUBB3 plays a critical role in proper axon guidance and maintenance (PubMed:&lt;a href="http://www.uniprot.org/citations/20074521" target="\_blank"&gt;20074521&lt;/a&gt;). Binding of

NTN1/Netrin-1 to its receptor UNC5C might cause dissociation of UNC5C from polymerized TUBB3 in microtubules and thereby lead to increased microtubule dynamics and axon repulsion (PubMed:<a href="http://www.uniprot.org/citations/28483977" target="\_blank">28483977</a>). Plays a role in dorsal root ganglion axon projection towards the spinal cord (PubMed:<a href="http://www.uniprot.org/citations/28483977" target="\_blank">28483977</a>).

#### Cellular Location

Cytoplasm, cytoskeleton. Cell projection, growth cone {ECO:0000250|UniProtKB:Q9ERD7}. Cell projection, lamellipodium {ECO:0000250|UniProtKB:Q9ERD7}. Cell projection, filopodium {ECO:0000250|UniProtKB:Q9ERD7}

#### Tissue Location

Expression is primarily restricted to central and peripheral nervous system. Greatly increased expression in most cancerous tissues.

#### Volume

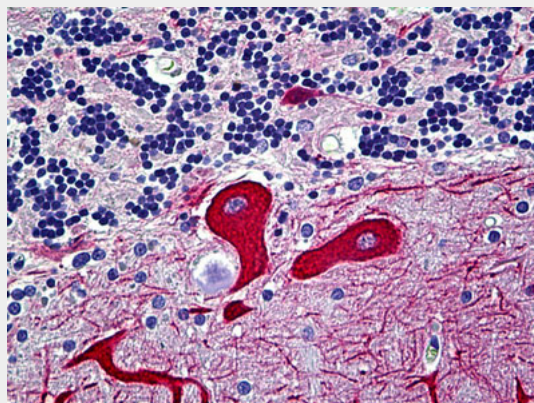
50 µl

### TUBB3 / Tubulin Beta 3 Antibody (aa436-450) - 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](#)

### TUBB3 / Tubulin Beta 3 Antibody (aa436-450) - Images



Anti-TUBB3 / Beta III Tubulin antibody IHC of human brain, cerebellum.

### TUBB3 / Tubulin Beta 3 Antibody (aa436-450) - Background

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. TUBB3 plays a critical role in proper axon guidance and maintenance.

### TUBB3 / Tubulin Beta 3 Antibody (aa436-450) - References

Ranganathan S., et al. *Biochim. Biophys. Acta* 1395:237-245(1998).  
Banerjee A., et al. Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.  
Ota T., et al. *Nat. Genet.* 36:40-45(2004).  
Martin J., et al. *Nature* 432:988-994(2004).  
Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.