

TUBB3 / Tubulin Beta 3 Antibody
Mouse Monoclonal Antibody
Catalog # ALS14241**Specification**

TUBB3 / Tubulin Beta 3 Antibody - Product Information

Application	WB, IHC
Primary Accession	Q13509
Reactivity	Rat
Host	Mouse
Clonality	Monoclonal
Calculated MW	50kDa KDa

TUBB3 / Tubulin Beta 3 Antibody - Additional Information**Gene ID** 10381**Other Names**

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

Target/Specificity

Specific for the ~55kD beta III tubulin protein. This clone is similar to the monoclonal antibody Tuj1.

Reconstitution & Storage

May be stored at 4°C for short-term only. For long-term storage and to avoid repeated freezing and thawing, aliquot and store at -20°C. Aliquots are stable for at least 12 months at -20°C

Precautions

TUBB3 / Tubulin Beta 3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TUBB3 / Tubulin Beta 3 Antibody - 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:34996871). Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms (PubMed:34996871). Below the cap, tubulin dimers are in GDP-bound state, owing to GTPase activity of alpha- tubulin (PubMed:34996871). TUBB3 plays a critical role in proper axon guidance and maintenance (PubMed:20074521). 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:28483977). Plays a role in dorsal root ganglion axon projection towards the spinal cord (PubMed:28483977).

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

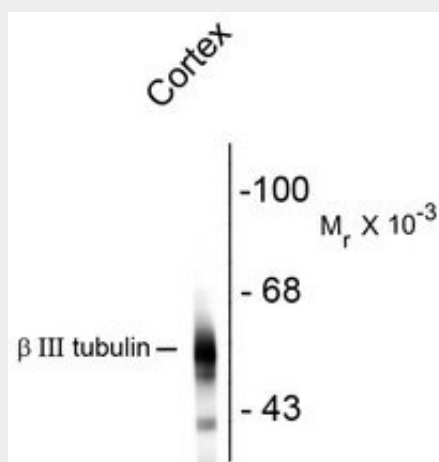
Expression is primarily restricted to central and peripheral nervous system. Greatly increased expression in most cancerous tissues.

TUBB3 / Tubulin Beta 3 Antibody - Protocols

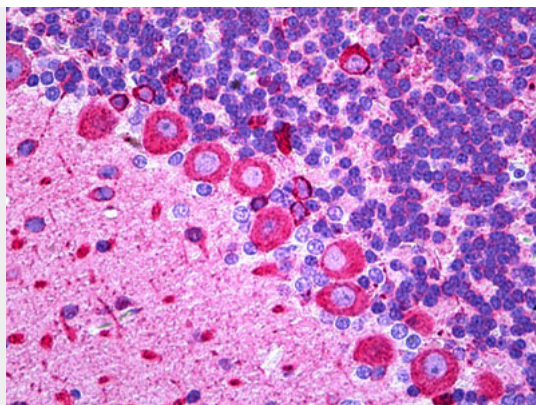
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TUBB3 / Tubulin Beta 3 Antibody - Images



Western blot of rat cortex lysate showing specific immunolabeling of the ~55k beta III tubulin...



Anti-TUBB3 / Beta III Tubulin antibody IHC of rat brain, Purkinje cells.

TUBB3 / Tubulin Beta 3 Antibody - 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 - 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.