

TUBB3 / Tubulin Beta 3 Antibody

Chicken Polyclonal Antibody Catalog # ALS13916

Specification

TUBB3 / Tubulin Beta 3 Antibody - Product Information

Application	IHC
Primary Accession	<u>Q13509</u>
Reactivity	Mouse
Host	Chicken
Clonality	Polyclonal
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 Recognizes beta-Tubulin 3. Species cross-reactivity: mouse. Species sequence homology: rat, human.

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 12 months.

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). 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

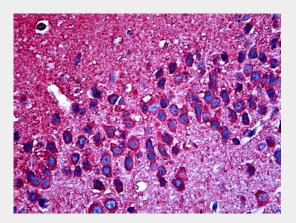
Expression is primarily restricted to central and peripheral nervous system. Greatly increased expression in most cancerous tissues.

TUBB3 / Tubulin Beta 3 Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

TUBB3 / Tubulin Beta 3 Antibody - Images



Anti-Tuj1 antibody IHC of mouse brain.

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 mantainance.

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.