10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TUBB3 / Tubulin Beta 3 Antibody (aa436-450)

Mouse Monoclonal Antibody
Catalog # ALS13917

Specification

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

Application	**IHC**
Primary Accession	Q13509
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: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.

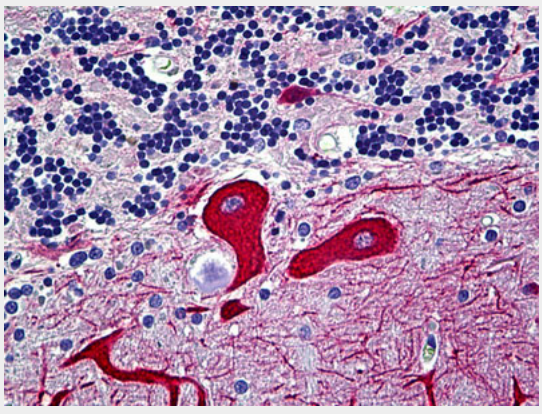
Volume
50 µl

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 Cytomety
- 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 mantainance.

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.