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TUBB3 / Tubulin Beta 3 Antibody (C-Terminus, clone TU-20)

Mouse Monoclonal Antibody
Catalog # ALS13466

Specification

TUBB3 / Tubulin Beta 3 Antibody (C-Terminus, clone TU-20) - Product Information

Application	**IHC**
Primary Accession	Q13509
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**50kDa KDa**

TUBB3 / Tubulin Beta 3 Antibody (C-Terminus, clone TU-20) - Additional Information

Gene ID 10381

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

Target/Specificity
Recognizes C-terminal peptide sequence ESESQGPK (aa 441-448) of neuron-specific human betaIII-tubulin

Reconstitution & Storage
Store at +4°C. DO NOT FREEZE.

Precautions
TUBB3 / Tubulin Beta 3 Antibody (C-Terminus, clone TU-20) is for research use only and not for use in diagnostic or therapeutic procedures.

TUBB3 / Tubulin Beta 3 Antibody (C-Terminus, clone TU-20) - 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}

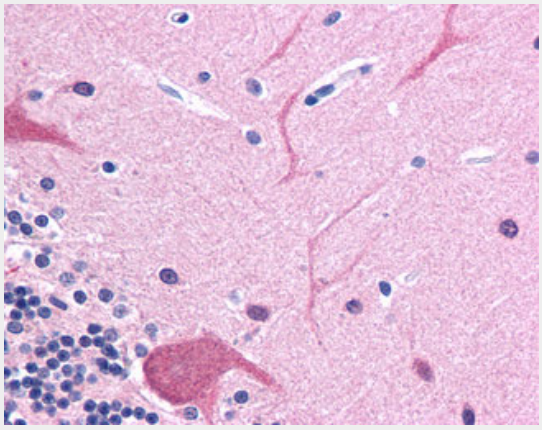
Tissue Location
Expression is primarily restricted to central and peripheral nervous system. Greatly increased expression in most cancerous tissues.

TUBB3 / Tubulin Beta 3 Antibody (C-Terminus, clone TU-20) - 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 (C-Terminus, clone TU-20) - Images



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

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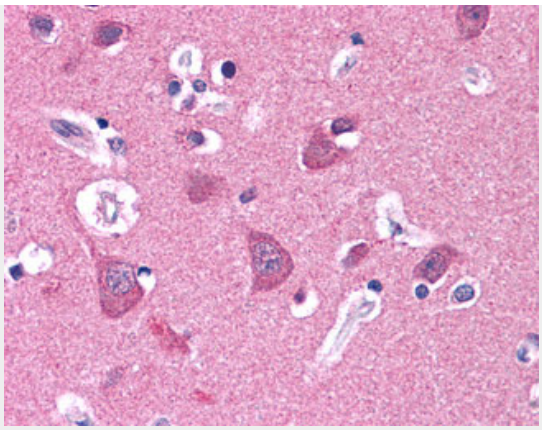
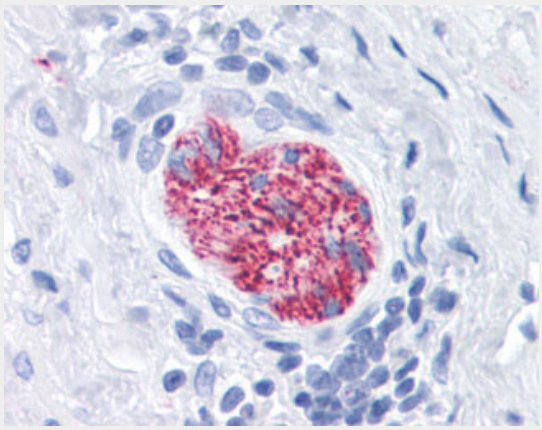


Anti-TUBB3 / Beta III Tubulin antibody IHC of human brain, cortex.



Anti-TUBB3 / Beta III Tubulin antibody IHC of human peripheral nerve.

TUBB3 / Tubulin Beta 3 Antibody (C-Terminus, clone TU-20) - 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 (C-Terminus, clone TU-20) - 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.