

# TUBB3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP5752A

## Product Information

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<b>Application</b>	WB, IHC-P, FC, E
<b>Primary Accession</b>	<a href="#">Q13509</a>
<b>Other Accession</b>	<a href="#">P09652</a> , <a href="#">Q4QRB4</a> , <a href="#">Q9ERD7</a> , <a href="#">Q60HC2</a> , <a href="#">Q2T9S0</a> , <a href="#">NP_006077.2</a>
<b>Reactivity</b>	Human, Mouse
<b>Predicted</b>	Bovine, Monkey, Rat, Chicken
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB21098
<b>Calculated MW</b>	50433
<b>Antigen Region</b>	36-63

## Additional Information

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<b>Gene ID</b>	10381
<b>Other Names</b>	Tubulin beta-3 chain, Tubulin beta-4 chain, Tubulin beta-III, TUBB3, TUBB4
<b>Target/Specificity</b>	This TUBB3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 36-63 amino acids of human TUBB3.
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	TUBB3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	TUBB3
<b>Synonyms</b>	TUBB4
<b>Function</b>	Tubulin is the major constituent of microtubules, protein filaments

consisting of alpha- and beta-tubulin heterodimers (PubMed:[34996871](#), PubMed:[38305685](#), PubMed:[38609661](#)). Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms (PubMed:[34996871](#), PubMed:[38305685](#), PubMed:[38609661](#)). Below the cap, alpha-beta tubulin heterodimers are in GDP-bound state, owing to GTPase activity of alpha-tubulin (PubMed:[34996871](#), PubMed:[38609661](#)). 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.

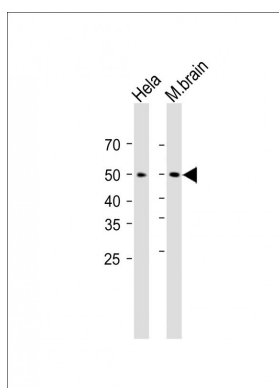
## Background

Beta III tubulin is abundant in the central and peripheral nervous systems (CNS and PNS) where it is prominently expressed during fetal and postnatal development. As exemplified in cerebellar and sympathoadrenal neurogenesis, the distribution of beta III is neuron-associated, exhibiting distinct temporospatial gradients according to the regional neuroepithelia of origin. However, transient expression of this protein is also present in the subventricular zones of the CNS comprising putative neuronal- and/or glial precursor cells, as well as in Kulchitsky neuroendocrine cells of the fetal respiratory epithelium. This temporally restricted, potentially non-neuronal expression may have implications in the identification of presumptive neurons derived from embryonic stem cells.

## References

Khan, I.A., et al. Biochemistry 35(12):3704-3711(1996)  
 Khan, I.A., et al. Biochemistry 35(12):3704-3711(1996)  
 Viores, S.A., et al. Exp. Eye Res. 60(4):385-400(1995)

## Images



All lanes: Anti-TUBB3 Antibody (N-term) at 1:1000 dilution  
 Lane 1: Hela whole cell lysate Lane 2: Mouse brain lysate  
 Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 50.4 kDa  
 Blocking/Dilution buffer: 5% NFDm/TBST.

## Citations

- [miR-501 is upregulated in cervical cancer and promotes cell proliferation, migration and invasion by targeting CYLD.](#)
- [Pejvakin, a Candidate Stereociliary Rootlet Protein, Regulates Hair Cell Function in a Cell-Autonomous Manner.](#)
- [Calpain-dependent cytoskeletal rearrangement exploited for anthrax toxin endocytosis.](#)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.