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TUBB3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP5752A

Specification

TUBB3 Antibody (N-term) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	Q13509
Other Accession	P09652, Q4QRB4, Q9ERD7, Q60HC2, Q2T9S0, NP_006077.2
Reactivity	Human, Mouse
Predicted	Bovine, Monkey, Rat, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	36-63

TUBB3 Antibody (N-term) - Additional Information

Gene ID 10381

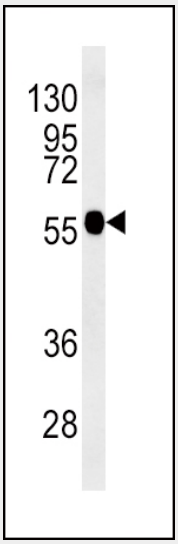
Other Names
Tubulin beta-3 chain, Tubulin beta-4 chain, Tubulin beta-III, TUBB3, TUBB4

Target/Specificity
This TUBB3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 36-63 amino acids of human TUBB3.

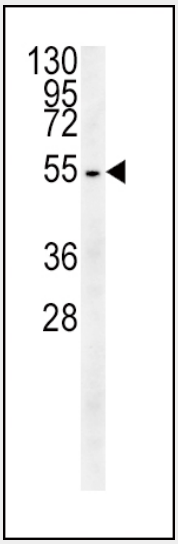
Dilution
WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
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.



TUBB3 Antibody (N-term) (Cat. #AP5752a) western blot analysis in mouse brain tissue lysates (15ug/lane).This demonstrates the TUBB3 antibody detected the TUBB3 protein (arrow).



TUBB3 Antibody (N-term) (Cat. #AP5752a) western blot analysis in HepG2 cell line lysates (15ug/lane).This demonstrates the TUBB3 antibody detected the TUBB3 protein (arrow).

Precautions
TUBB3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

TUBB3 Antibody (N-term) - Protein Information

Name TUBB3

Synonyms TUBB4

Function
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. 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).

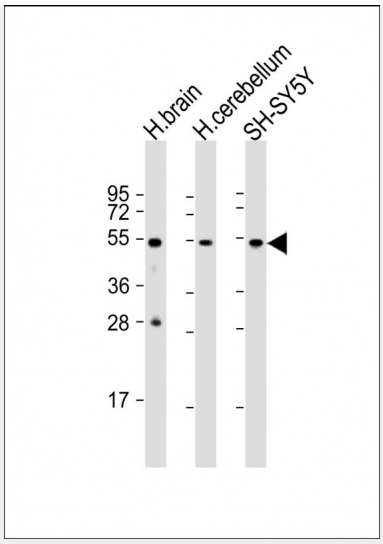
Cellular Location
Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q9ERD7}. Cell projection, growth cone {ECO:0000250|UniProtKB:Q9ERD7}. Cell projection, lamellipodium {ECO:0000250|UniProtKB:Q9ERD7}. Cell projection, filopodium {ECO:0000250|UniProtKB:Q9ERD7}

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

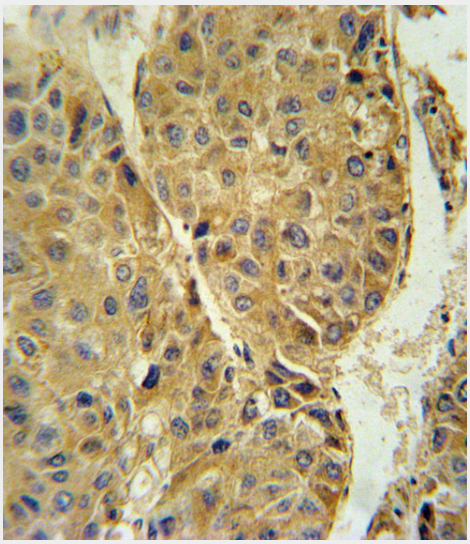
TUBB3 Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides



All lanes : Anti-TUBB3 Antibody (N-term) at 1:1000 dilution Lane 1: human brain lysate Lane 2: human cerebellum lysate Lane 3: SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



TUBB3 Antibody (N-term) (Cat. #AP5752a) immunohistochemistry analysis in formalin fixed and paraffin embedded human hepatocarcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the TUBB3 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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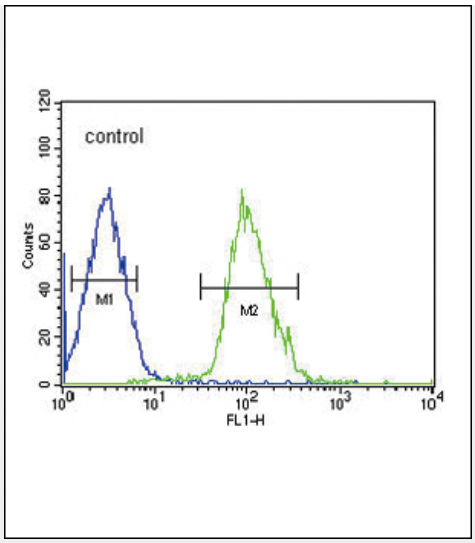
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



TUBB3 Antibody (N-term) (Cat. #AP5752a) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

TUBB3 Antibody (N-term) - 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.

TUBB3 Antibody (N-term) - References

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

TUBB3 Antibody (N-term) - 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.