

## Rabbit Anti-beta III Tubulin Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP52263

# **Specification**

## Rabbit Anti-beta III Tubulin Polyclonal Antibody - Product Information

Application WB, IHC-P Primary Accession 013509

Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Calculated MW 50433

## Rabbit Anti-beta III Tubulin Polyclonal Antibody - Additional Information

Gene ID 10381

#### **Other Names**

CDCBM; FEOM3; TUBB4; CDCBM1; CFEOM3; beta-4; CFEOM3A; Tubulin beta-3 chain; Tubulin beta-4 chain; Tubulin beta-III; TUBB3

## **Dilution**

<span class ="dilution\_WB">WB $\sim$ 1:100 $\sim$ 1:500/span><br/>span class ="dilution IHC-P">IHC-P $\sim$ 1:100 $\sim$ 1:500/span>

#### **Format**

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

# **Storage**

Store at -20  $^{\circ}$ C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4  $^{\circ}$ C.

### Rabbit Anti-beta III Tubulin Polyclonal 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:<a href="http://www.uniprot.org/citations/34996871" target="\_blank">34996871</a>). Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms (PubMed:<a href="http://www.uniprot.org/citations/34996871" target="\_blank">34996871</a>). Below the cap, tubulin dimers are in GDP-bound state, owing to GTPase activity of alpha- tubulin (PubMed:<a href="http://www.uniprot.org/citations/34996871" target="\_blank">34996871</a>). TUBB3 plays a critical role in proper axon guidance and maintenance (PubMed:<a href="http://www.uniprot.org/citations/20074521" target="\_blank">20074521</a>). 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:<a href="http://www.uniprot.org/citations/28483977" target="\_blank">28483977</a>). Plays a role in dorsal root ganglion axon projection towards the spinal cord (PubMed:<a href="http://www.uniprot.org/citations/28483977" target=" blank">28483977</a>).

#### **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**

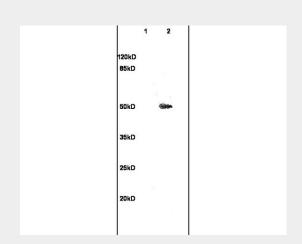
Expression is primarily restricted to central and peripheral nervous system. Greatly increased expression in most cancerous tissues.

## Rabbit Anti-beta III Tubulin Polyclonal Antibody - Protocols

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

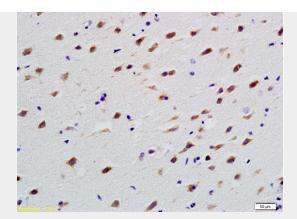
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## Rabbit Anti-beta III Tubulin Polyclonal Antibody - Images



L1 rat brain lysates L2 rat kidney lysates probed with Anti TUBB3 Polyclonal Antibody, Unconjugated (AP52263) at 1:200 overnight at 4°C. Followed by conjugation to secondary antibody at 1:3000 for 90 min at 37°C. Predicted band 50kD. Observed band size:50kD.





Formalin-fixed and paraffin embedded rat brain labeled with Anti-TUBB3 Polyclonal Antibody, Unconjugated (AP52263) at 1:200 followed by conjugation to the secondary antibody and DAB staining

# Rabbit Anti-beta III Tubulin Polyclonal 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.

# Rabbit Anti-beta III Tubulin Polyclonal Antibody - Citations

• <u>Identification of molecular markers for superior quantitative traits in a novel sea cucumber strain by comparative microRNA-mRNA expression profiling</u>