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Anti-Beta III Tubulin Picoband Antibody

Catalog # ABO10218

Product Information

Application	WB, IHC-P
Primary Accession	Q13509
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Tubulin beta-3 chain(TUBB3) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	10381
Other Names	Tubulin beta-3 chain, Tubulin beta-4 chain, Tubulin beta-III, TUBB3, TUBB4
Calculated MW	50433
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasm, cytoskeleton.
Tissue Specificity	Expression is primarily restricted to central and peripheral nervous system. Greatly increased expression in most cancerous tissues. .
Source	Eukaryota
Protein Name	Tubulin beta-3 chain
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Beta III Tubulin (383-412aa EQFTAMFRRKAFLHWYTGEGMDEMEFTEAE), identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

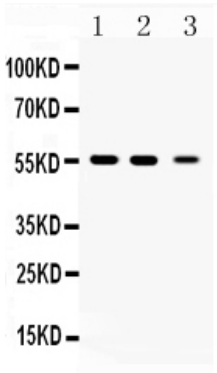
Protein Information

Name	TUBB3
Synonyms	TUBB4
Function	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.

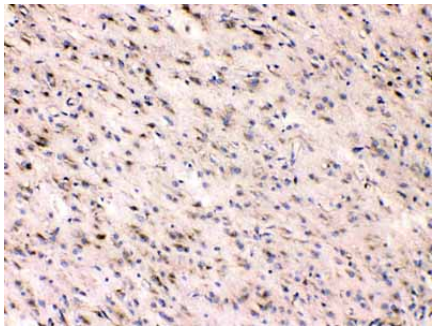
Background

Tubulin beta-3 chain is a protein that in humans is encoded by the TUBB3 gene. This gene encodes a class III member of the beta tubulin protein family. Beta tubulins are one of two core protein families (alpha and beta tubulins) that heterodimerize and assemble to form microtubules. This protein is primarily expressed in neurons and may be involved in neurogenesis and axon guidance and maintenance. Mutations in this gene are the cause of congenital fibrosis of the extraocular muscles type 3. Alternate splicing results in multiple transcript variants. A pseudogene of this gene is found on chromosome 6.

Images



Western blot analysis of Beta III Tubulin expression in rat brian extract (lane 1), mouse brain extract (lane 2) and HELA whole cell lysates (lane 3). Beta III Tubulin at 55KD was detected using rabbit anti- Beta III Tubulin Antigen Affinity purified polyclonal antibody (Catalog # ABO10218) at 0.5 □¼g/mL. The blot was developed using chemiluminescence (ECL) method .



Beta III Tubulin was detected in paraffin-embedded sections of human glioma tissues using rabbit anti- Beta III Tubulin Antigen Affinity purified polyclonal antibody (Catalog # ABO10218) at 1 μg/mL. The immunohistochemical section was developed using SABC method .



Beta III Tubulin was detected in paraffin-embedded sections of human mammary cancer tissues using rabbit anti- Beta III Tubulin Antigen Affinity purified polyclonal antibody (Catalog # ABO10218) at 1 μg/mL. The immunohistochemical section was developed using SABC method .

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