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beta Tubulin Antibody (HRP conjugated)

Rabbit mAb
Catalog # AP90057

Product Information

Application	WB
Primary Accession	Q13509
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	beta-4; CFEOM3A; MC1R; TBB3; TUBB3; TUBB4; Tubulin beta-3 chain; tubulin beta-4; Tubulin beta-4 chain; Tubulin beta-III; tubulin, beta 3; tubulin, beta, 4, beta tubulin;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	50433

Additional Information

Dilution	WB 1:5000~1:20000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human beta Tubulin
Description	Microtubules are constituent parts of the mitotic apparatus, cilia, flagella, and elements of the cytoskeleton. They consist principally of 2 soluble proteins, alpha- and beta-tubulin, each of about 55,000 kDa. Antibodies against beta Tubulin are useful as loading controls for Western Blotting. However it should be noted that levels of beta-Tubulin may not be stable in certain cells. For example, expression of beta-Tubulin in adipose tissue is very low and therefore beta-Tubulin should not be used as loading control for these tissues.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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).

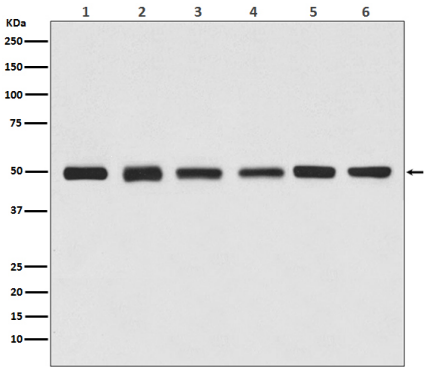
Cellular Location

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.

Images



Western blot analysis of beta Tubulin expression in (1) Jurkat cell lysate, (2) Human kidney lysate, (3) 3T3 cell lysate, (4) Mouse brain lysate, (5) C6 cell lysate, (6) Rat heart lysate.

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