

## Product datasheet for **TA500047S**

### beta III Tubulin (TUBB3) Mouse Monoclonal Antibody [Clone ID: OTI5H2]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI5H2
Applications:	WB
Recommended Dilution:	WB 1:1000~2000
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human recombinant protein fragment corresponding to amino acids 1-150 of human TUBB3 (NP_006077) produced in E.coli.
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	1 mg/ml
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	50.3 kDa
Gene Name:	tubulin beta 3 class III
Database Link:	<a href="#">NP_006077</a> <a href="#">Entrez Gene 22152 Mouse</a> <a href="#">Entrez Gene 246118 Rat</a> <a href="#">Entrez Gene 10381 Human</a> <a href="#">Q13509</a>



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**Background:**

Tubulin is the major building block of microtubules. This intracellular cylindrical filamentous structure is present in almost all eukaryotic cells. Microtubules function as structural and mobile elements in mitosis, intracellular transport, flagellar movement, and the cytoskeleton. Except in the simplest eukaryotes, tubulin exists in all cells as a mixture of similar, but not identical, sets of alpha and beta tubulin polypeptides. Within either set of polypeptides, individual subunits diverge from each other (both within and across species) at less than 10% of the amino acid positions. The most extreme diversity is localized to the 15 residues of the carboxy terminal. For beta tubulin five evolutionarily conserved isotype clones have been identified. These are almost totally conserved in the subunits utilized in the same cell types of different species, with the exception of the hematopoietic beta tubulin which is the most highly divergent in sequence and is not conserved between species. Research has been centered around the hypothesis that these beta tubulin isotypes contribute to unique functional properties. It has been reported that the different isotypes of tubulin differ from each other in their ability to polymerize into microtubules.

**Synonyms:**

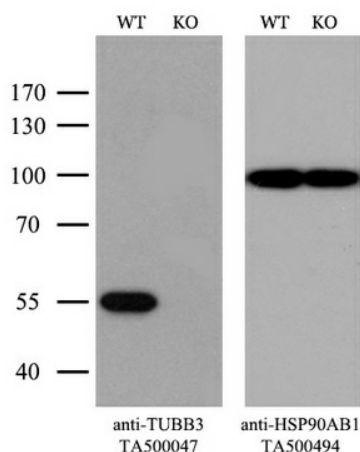
beta-4; CDCBM; CDCBM1; CFEOM3; CFEOM3A; FEOM3; TUBB4

**Protein Families:**

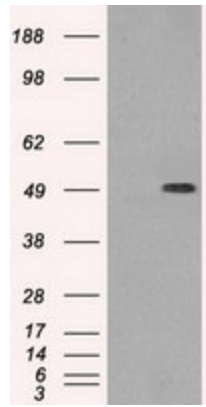
Druggable Genome, ES Cell Differentiation/IPS

**Protein Pathways:**

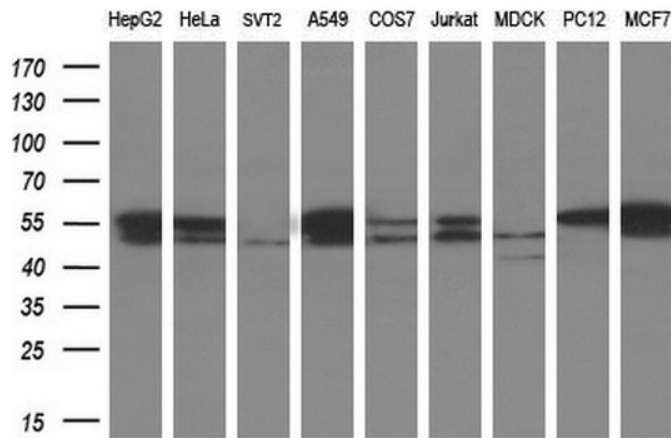
Gap junction, Pathogenic Escherichia coli infection

**Product images:**

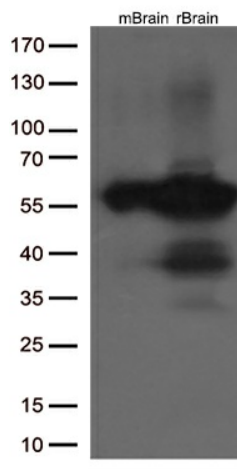
Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and TUBB3-Knockout HeLa cells (KO, Cat# [LC810307]) were separated by SDS-PAGE and immunoblotted with anti-TUBB3 monoclonal antibody [TA500047]. Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([TA500494]) as a loading control (1:500).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TUBB3 (Cat# [RC200755], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TUBB3 (Cat# [TA500047]). Positive lysates [LY416872] (100ug) and [LC416872] (20ug) can be purchased separately from OriGene.



Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-TUBB3 monoclonal antibody at 1:200. (HepG2: human; HeLa: human; SVT2: mouse; A549: human; COS7: monkey; Jurkat: human; MDCK: canine; PC12: rat; MCF7: human)



Western blot analysis of extracts (35ug) from 2 different tissues by using anti-TUBB3 monoclonal antibody (1:500).