DATASHEET

Beta-tubulin Mouse Monoclonal Antibody(C2097)

CAT. NO. AMA01709

KEY FEATURES

Target	Beta-tubulin	**Source / Host**	Mouse
Reactivity	Human, Mouse, Rat, Monkey, Dog, Chicken, Rabbit, Sheep, Insect, Yeast	**Clonality**	Monoclonal
Applications	WB, IHC, IF/ICC	**Conjugation**	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	**Storage**	at-20°C

BACKGROUND

Tubulin is the major constituent of microtubules, protein filaments consisting of alpha- and beta-tubulin heterodimers . Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms . Below the cap, alpha-beta tubulin heterodimers are in GDP-bound state, owing to GTPase activity of alpha-tubulin . 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 . Plays a role in dorsal root ganglion axon projection towards the spinal cord .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:2000 - 1:5000
IHC	1:100 - 1:200
IF/ICC	1:100 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Mouse monoclonal antibody to Beta-tubulin
Specificity	Recognizes endogenous levels of Beta-tubulin protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence of human Beta-tubulin. The exact sequence is proprietary.
Purification	Affinity chromatography
Molecular Weight	Predicted: 50 kD; Observed: 52 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	TUBB4; Tubulin beta-3 chain; Tubulin beta-4 chain; Tubulin beta-III
Gene Symbol	TUBB3
Entrez Gene	10381(Human); 22152(Mouse); 246118(Rat)
SwissProt	Q13509(Human); Q9ERD7(Mouse); Q4QRB4(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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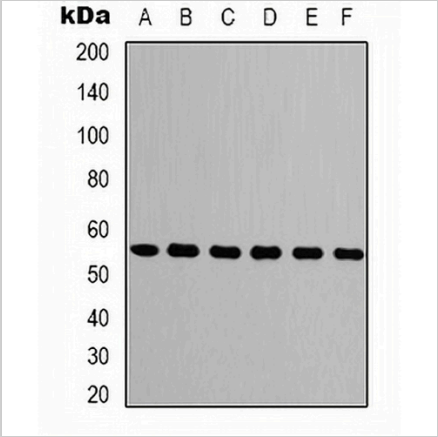
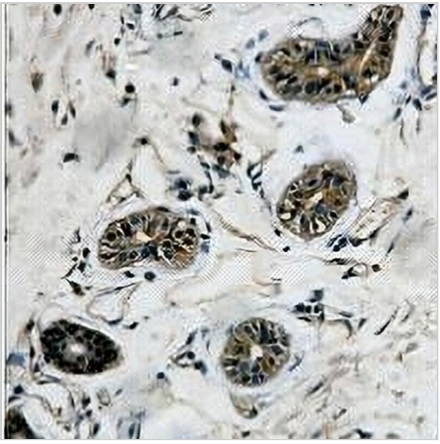
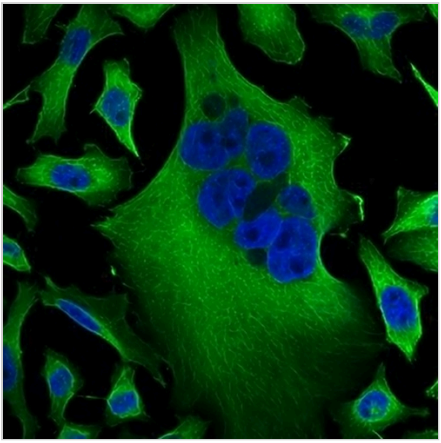
DATA



Western blot analysis of Beta-tubulin expression in A549 (A), mouse brain (B), rat brain (C), chicken lung (D), rabbit testis (E), sheep muscle (F) whole cell lysates. (Predicted band size: 50 kD; Observed band size: 52 kD)



Immunohistochemical analysis of Beta-tubulin staining in human colon formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Beta-tubulin staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a FITC-conjugated secondary antibody (green) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.