ARG62347
anti-beta Tubulin antibody [BT7R]

Package: 100 µg, 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [BT7R] recognizes beta Tubulin
Tested Reactivity	Hu, Ms, Rat, Chk, Mk, Rb
Tested Application	Dot, ELISA, ICC/IF, WB
Specificity	Recognizes native and denatured forms of beta Tubulin (about 50 kDa).
Host	Mouse
Clonality	Monoclonal
Clone	BT7R
Isotype	IgG2a
Target Name	beta Tubulin
Species	Human
Immunogen	KLH-conjugated synthetic peptide around the N-terminal region of Human beta Tubulin.
Conjugation	Un-conjugated
Alternate Names	Tubulin beta-1 chain

Application Instructions

Application table

Application	Dilution
Dot	Assay-dependent
ELISA	Assay-dependent
ICC/IF	1:500 - 1:2000
WB	1:2000 - 1:10000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	Mouse brain tissue lysates

Properties

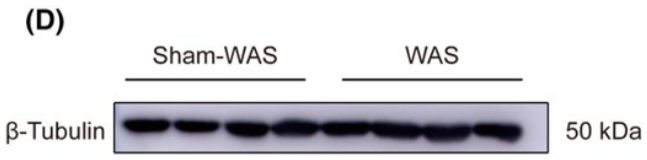
Form	Liquid
Purification Note	Protein A affinity chromatography from Mouse ascites fluid.
Buffer	10mM PBS (pH 7.2) and 0.05% Sodium azide
Preservative	0.05% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

	and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	TUBB1
Gene Full Name	tubulin, beta 1 class VI
Background	Beta tubulins are one of two core protein families (alpha and beta tubulins) that heterodimerize and assemble to form microtubules. This protein is specifically expressed in platelets and megakaryocytes and may be involved in proplatelet production and platelet release. A mutations in this gene is associated with autosomal dominant macrothrombocytopenia. Two pseudogenes of this gene are found on chromosome Y. [provided by RefSeq, Jul 2010]
Function	Tubulins 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. [UniProt]
Highlight	Related Antibody Duos and Panels: ARG30330 Pyroptosis Antibody Panel Related products: beta Tubulin antibodies; beta Tubulin Duos / Panels; Anti-Mouse IgG secondary antibodies;
Research Area	Controls and Markers antibody; Signaling Transduction antibody
Calculated Mw	50 kDa
PTM	Some glutamate residues at the C-terminus are polyglutamylated, resulting in polyglutamate chains on the gamma-carboxyl group (PubMed:26875866). Polyglutamylation plays a key role in microtubule severing by spastin (SPAST). SPAST preferentially recognizes and acts on microtubules decorated with short polyglutamate tails: severing activity by SPAST increases as the number of glutamates per tubulin rises from one to eight, but decreases beyond this glutamylation threshold (PubMed:26875866). Some glutamate residues at the C-terminus are monoglycylated but not polyglycylated due to the absence of functional TTLL10 in human. Monoglycylation is mainly limited to tubulin incorporated into axonemes (cilia and flagella). Both polyglutamylation and monoglycylation can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylation, and reciprocally. The precise function of monoglycylation is still unclear (Probable). Phosphorylated on Ser-172 by CDK1 during the cell cycle, from metaphase to telophase, but not in interphase. This phosphorylation inhibits tubulin incorporation into microtubules.
Cellular Localization	Cytoplasm › cytoskeleton

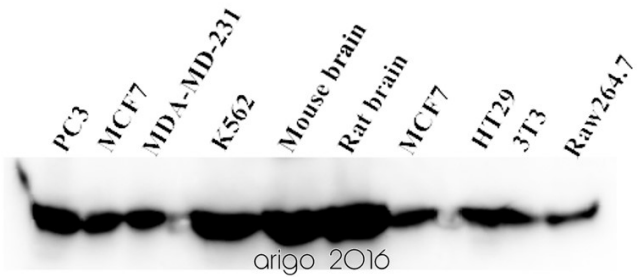
Images



ARG62347 anti-beta Tubulin antibody [BT7R] WB image

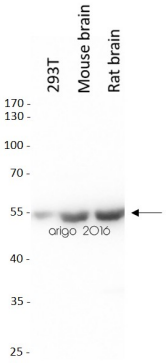
Western blot: Rat basolateral amygdala stained with ARG62347 anti-beta Tubulin antibody [BT7R] at 1:1000 dilution, ARG65350 Goat anti-Mouse IgG antibody (HRP) at 1:5000 dilution.

From Guang-Bing Duan et al. CNS Neurosci Ther. (2024), doi: 10.1111/cns.14611, Fig. 4.D.



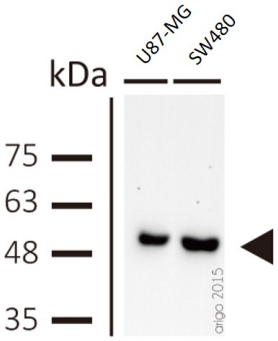
ARG62347 anti-beta Tubulin antibody [BT7R] WB image

Western blot: 20 µg of PC3, MCF7, MDA-MD-231, K562, M. brain, R. brain, MCF7, HT29, 3T3 and Raw264.7 cell lysates stained with ARG62347 anti-beta Tubulin antibody [BT7R] at 1:3000 dilution.



ARG62347 anti-beta Tubulin antibody [BT7R] WB image

Western blot: 20 µg of 293T, Mouse brain and Rat brain lysates stained with ARG62347 anti-beta Tubulin antibody [BT7R] at 1:10000 dilution.



ARG62347 anti-beta Tubulin antibody [BT7R] WB image

Western blot: U87-MG and SW480 cell lysates stained with ARG62347 anti-beta Tubulin antibody [BT7R] at 1:1000 dilution.