

ARG54082 anti-beta Tubulin antibody

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

Summary

Product Description	Mouse Monoclonal antibody recognizes TUBB
Tested Reactivity	Hu, Ms, Rat, Goat, Hm, Mk
Tested Application	ICC/IF, WB
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Target Name	beta Tubulin
Species	Human
Immunogen	Purified recombinant human Tubulin beta protein fragments expressed in E.coli.
Conjugation	Un-conjugated
Alternate Names	OK/SW-cl.56; CDCBM6; Tubulin beta chain; M40; TUBB5; Tubulin beta-5 chain; TUBB1

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:500
	WB	1:5000 - 1:20000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

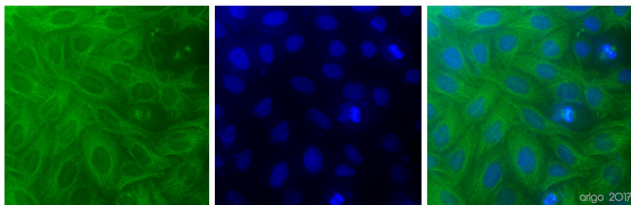
Properties

Form	Liquid
Purification	Affinity purified
Buffer	PBS (pH 7.4), 0.02% Sodium azide, 0.1mg/ml BSA and 50% Glycerol
Preservative	0.02% Sodium azide
Stabilizer	0.1mg/ml BSA, 50% Glycerol
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. 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

Database links	GeneID: 203068 Human GeneID: 574113 Monkey Swiss-port # P07437 Human Swiss-port # P69895 Monkey
Gene Symbol	TUBB
Gene Full Name	tubulin, beta class I
Background	Tubulin 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.
Function	Tubulin 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: ARG30270 Loading Control Antibody Panel (Actin, beta Tubulin, Histone H3, GAPDH) Related products: beta Tubulin antibodies; beta Tubulin Duos / Panels; Anti-Mouse IgG secondary antibodies;
Research Area	Controls and Markers antibody; Signaling Transduction antibody; Loading Control 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 TTL10 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



ARG54082 anti-beta Tubulin antibody ICC/IF image

Immunofluorescence: 100% Methanol fixed (RT, 10 min) HeLa cells stained with ARG54082 anti-beta Tubulin antibody at 1:500 dilution. Left: primary antibody (green). Middle: DAPI (blue). Right: Merge.

Secondary antibody: [ARG55393](#) Goat anti-Mouse IgG (H+L) antibody (FITC)

ARG54082 anti-beta Tubulin antibody WB image

Western blot: 20 µg of 293T, Mouse brain and Rat brain lysates stained with ARG54082 anti-beta Tubulin antibody at 1:10000 dilution.

