

ARG53696 anti-alpha Tubulin antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes alpha Tubulin
Tested Reactivity	Hu, Ms, Rat, Cow, Gpig, Grb, Pig, Xenopus laevis, Zfsh
Tested Application	ICC/IF, IHC-Fr, IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	alpha Tubulin
Species	Human
Immunogen	Synthetic peptide derived from C-terminus of human tubulin alpha.
Conjugation	Un-conjugated
Alternate Names	TUBA1; ALS22; Tubulin alpha-4A chain; Testis-specific alpha-tubulin; Alpha-tubulin 1; Tubulin alpha-1 chain; Tubulin H2-alpha; H2-ALPHA

Application Instructions

Application table	Application	Dilution
	ICC/IF	Assay-Dependent
	IHC-Fr	Assay-Dependent
	IHC-P	1:100
	IP	Assay-Dependent
	WB	1:500 - 1:10000
Application Note	IHC-P: Antigen Retrieval: Boil tissue section in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min. Incubation Time: 10 min at RT. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Lung	

Properties

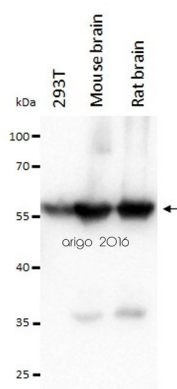
Form	Liquid
Purification	Immunogen affinity purified
Buffer	PBS (pH 7.6), 1% BSA and < 0.1% Sodium azide
Preservative	< 0.1% Sodium azide

Stabilizer	1% BSA
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

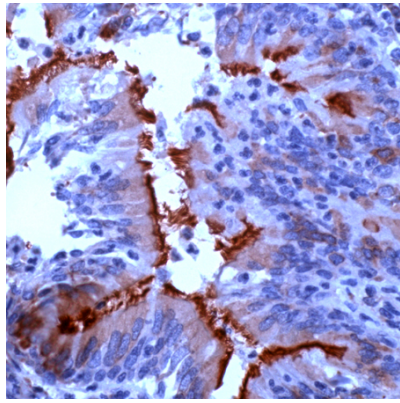
Gene Symbol	TUBA4A
Gene Full Name	tubulin, alpha 4a
Background	Microtubules of the eukaryotic cytoskeleton perform essential and diverse functions and are composed of a heterodimer of alpha and beta tubulin. The genes encoding these microtubule constituents are part of the tubulin superfamily, which is composed of six distinct families. Genes from the alpha, beta and gamma tubulin families are found in all eukaryotes. The alpha and beta tubulins represent the major components of microtubules, while gamma tubulin plays a critical role in the nucleation of microtubule assembly. There are multiple alpha and beta tubulin genes and they are highly conserved among and between species. This gene encodes an alpha tubulin that is a highly conserved homolog of a rat testis-specific alpha tubulin. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2013]
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]
Research Area	Controls and Markers antibody; Neuroscience 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 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). Acetylation of alpha chains at Lys-40 is located inside the microtubule lumen. This modification has been correlated with increased microtubule stability, intracellular transport and ciliary assembly. Methylation of alpha chains at Lys-40 is found in mitotic microtubules and is required for normal mitosis and cytokinesis contributing to genomic stability.
Cellular Localization	Cytoplasm

Images



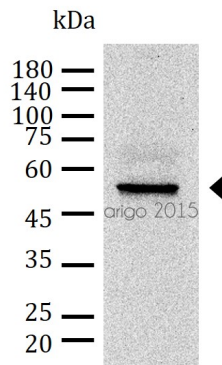
ARG53696 anti-alpha Tubulin antibody WB image

Western blot: 20 µg of 293T, Mouse brain and Rat brain lysates stained with ARG53696 anti-alpha Tubulin antibody at 1:10000 dilution.



ARG53696 anti-alpha Tubulin antibody IHC-P image

Immunohistochemistry: Human Lung stained with ARG53696 anti-alpha Tubulin antibody



ARG53696 anti-alpha Tubulin antibody WB image

Western blot: 30 µg of Mouse heart lysate stained with ARG53696 anti-alpha Tubulin antibody at 1:500 dilution.