

Immunotag™ Tubulin α (Acetyl Lys112) Polyclonal Antibody

Antibody Specification	
Catalog No.	ITK0045
Product Description	Immunotag™ Tubulin α (Acetyl Lys112) Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	α-Tubulin (Lys112)
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized acetyl-peptide derived from human Tubulin α around the acetylation site of K112.
Specificity	Acetyl-Tubulin α (K112) Polyclonal Antibody detects endogenous levels of Tubulin α protein only when acetylated at K112.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	TUBA1A/TUBA1B/TUBA1C
Accession No.	Q71U36/P68363/Q9BQE3 P68370/Q6P9V9/Q6AYZ1
Alternate Names	TUBA1A; TUBA3; Tubulin alpha-1A chain; Alpha-tubulin 3; Tubulin B-alpha-1; Tubulin alpha-3 chain; TUBA1B; Tubulin alpha-1B chain; Alpha-tubulin ubiquitousTubulin K-alpha-1; Tubulin alpha-ubiquitous chain; TUBA1C; TUBA6; Tubulin alpha-1C chain; Alpha-tubulin 6; Tubulin alpha-6 chain

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Description	tubulin alpha 1a(TUBA1A) Homo sapiens Microtubules of the eukaryotic cytoskeleton perform essential and diverse functions and are composed of a heterodimer of alpha and beta tubulins. The genes encoding these microtubule constituents belong to 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, which are highly conserved among species. This gene encodes alpha tubulin and is highly similar to the mouse and rat Tuba1 genes. Northern blotting studies have shown that the gene expression is predominantly found in morphologically differentiated neurologic cells. This gene is one of three alpha-tubulin genes in a cluster on chromosome 12q.
Cell Pathway/ Category	Gap junction,Pathogenic Escherichia coli infection,
Protein Expression	Brain,Cajal-Retzius cell,Epithelium,Fetal brain,Fetal brain cortex,Muscle,Retina,Sk
Subcellular Localization	nucleus,cytosol,microtubule,cytoplasmic microtubule,cytoplasmic ribonucleoprotein granule,myelin sheath,recycling endosome,extracellular exosome,
Protein Function	disease:Defects in TUBA1A are the cause of lissencephaly type 3 (LIS3) [MIM:611603]. LIS is characterized by a smooth brain surface due to the absence (agyria) or reduction (pachygyria) of surface convolutions. It is often associated with psychomotor retardation and seizures. LIS3 features include agyria or pachygyria or laminar heterotopia, severe mental retardation, motor delay, variable presence of seizures, and abnormalities of corpus callosum, hippocampus, cerebellar vermis and brainstem.,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.,PTM:Undergoes a tyrosination/detyrosination cycle, the cyclic removal and re-addition of a C-terminal tyrosine residue by the enzymes tubulin tyrosine carboxypeptidase (TTCP) and tubulin tyrosine ligase (TTL), respectively.,similarity:Belongs to the tubulin family.,subunit:Dimer of alpha and beta chains.,tissue specificity:Expressed at a high level in fetal brain.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.