



# Tubulin $\alpha$ 1/3/4 Monoclonal Antibody

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|---------------------------|---|
| <b>Catalog No</b>         | YP-mAb-03204  |
| <b>Isotype</b>            | IgG   |
| <b>Reactivity</b>         | Human;Mouse;Rat   |
| <b>Applications</b>       | WB  |
| <b>Gene Name</b>          | TUBA1A  |
| <b>Protein Name</b>       | Tubulin alpha-1A chain  |
| <b>Immunogen</b>          | The antiserum was produced against synthesized peptide derived from human TUBA1/3/4. AA range:238-287   |
| <b>Specificity</b>        | Tubulin $\alpha$ 1/3/4 Monoclonal Antibody detects endogenous levels of Tubulin $\alpha$ 1/3/4 protein.   |
| <b>Formulation</b>        | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.   |
| <b>Source</b>             | Monoclonal, Mouse,IgG   |
| <b>Purification</b>       | The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.  |
| <b>Dilution</b>           | WB 1:500-1:2000   |
| <b>Concentration</b>      | 1 mg/ml   |
| <b>Purity</b>             | $\geq 90\%$   |
| <b>Storage Stability</b>  | -20°C/1 year  |
| <b>Synonyms</b>           | TUBA1A; TUBA3; Tubulin alpha-1A chain; Alpha-tubulin 3; Tubulin B-alpha-1; Tubulin alpha-3 chain; TUBA1B; Tubulin alpha-1B chain; Alpha-tubulin ubiquitous; Tubulin K-alpha-1; Tubulin alpha-ubiquitous chain; TUBA1C; TUBA6; Tubulin alpha-1C c  |
| <b>Observed Band</b>      | 50-56kD   |
| <b>Cell Pathway</b>       | Cytoplasm, cytoskeleton.  |
| <b>Tissue Specificity</b> | Expressed at a high level in fetal brain.   |
| <b>Function</b>           | 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), resp

**Background**

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.

**matters needing attention**

Avoid repeated freezing and thawing!

**Usage suggestions**

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

**Products Images**