

# Immunotag™ Tubulin α1/3/4 (phospho Tyr272) Polyclonal Antibody

| Antibody Specification |                                                                                                                                                                                                                                                  |
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| Catalog No.            | ITP0502                                                                                                                                                                                                                                          |
| Product Description    | Immunotag™ Tubulin α1/3/4 (phospho Tyr272) 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         | Tubulin α1/3/4 (Tyr272)                                                                                                                                                                                                                          |
| Clonality              | Polyclonal                                                                                                                                                                                                                                       |
| Storage/Stability      | -20°C/1 year                                                                                                                                                                                                                                     |
| Application            | WB,ELISA                                                                                                                                                                                                                                         |
| Recommended Dilution   | Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications.                                                                                                                                                              |
| Concentration          | 1 mg/ml                                                                                                                                                                                                                                          |
| Reactive Species       | Human,Mouse,Rat                                                                                                                                                                                                                                  |
| Host Species           | Rabbit                                                                                                                                                                                                                                           |
| Immunogen              | Synthesized phospho-peptide around the phosphorylation site of human Tubulin α1/3/4 (phospho Tyr272)                                                                                                                                             |
| Specificity            | Phospho-Tubulin α1/3/4 (Y272) Polyclonal Antibody detects endogenous levels of Tubulin α1/3/4 protein only when phosphorylated at Y272.                                                                                                          |
| 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                                                                                                                                                                                                                                           |
| Accession No.          | Q71U36/P68363/Q9BQE3/Q13748/Q6PEY2/P68366 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 ubiquitous; Tubulin K-alpha-1; Tubulin alpha-ubiquitous chain; TUBA1C; TUBA6; Tubulin alpha-1C c |

## Antibody Specification

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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/<br>Category   | Gap junction,Pathogenic Escherichia coli infection,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Protein<br>Expression       | Brain,Cajal-Retzius cell,Epithelium,Fetal brain,Fetal brain cortex,Muscle,Retina,Sk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Subcellular<br>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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |