

---

## Summary

<b>Production Name</b>	Tubulin $\alpha$ Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat,Chicken

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	TUBA1A TUBA1A; TUBA3; Tubulin alpha-1A chain; Alpha-tubulin 3; Tubulin B-alpha-1; Tubulin
<b>Alternative Names</b>	alpha-3 chain; TUBA1B; Tubulin alpha-1B chain; Alpha-tubulin ubiquitous; Tubulin K-alpha-1; Tubulin alpha-ubiquitous chain
<b>Gene ID</b>	7846/10376
<b>SwissProt ID</b>	Q71U36/P68363.The antiserum was produced against synthesized peptide derived from human Tubulin alpha. AA range:402-451

## Application

<b>Dilution Ratio</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested in other applications.
-----------------------	---

---

**Molecular Weight**      50kD

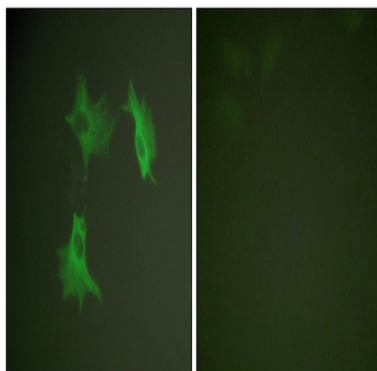
## Background

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. **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.**

## Research Area

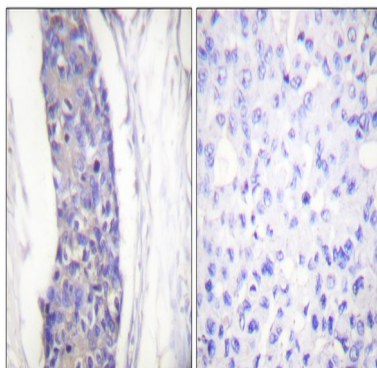
Gap junction; Pathogenic Escherichia coli infection;

## Image Data

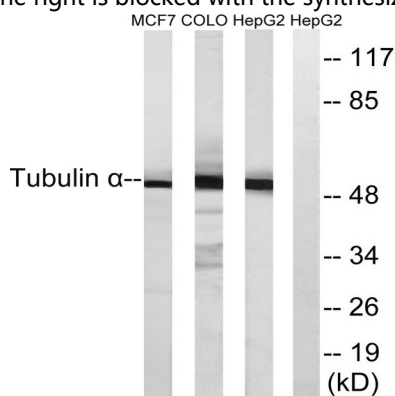


Immunofluorescence analysis of NIH/3T3 cells, using Tubulin alpha Antibody. The picture on the right is blocked with the synthesized peptide.

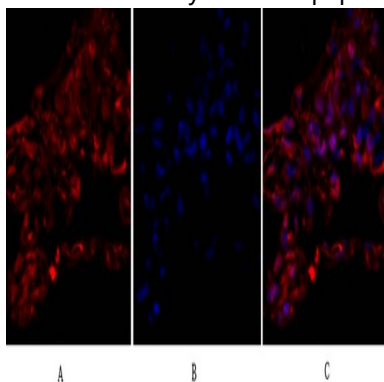
**Product Name: Tubulin  $\alpha$  Rabbit Polyclonal Antibody**  
**Catalog #: APRab19422**



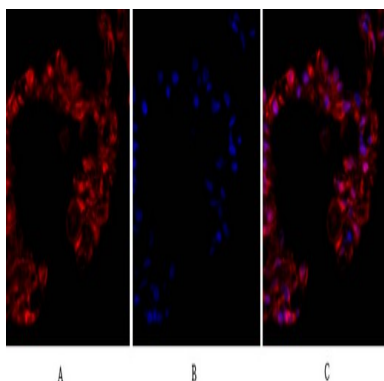
Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using Tubulin alpha Antibody. The picture on the right is blocked with the synthesized peptide.



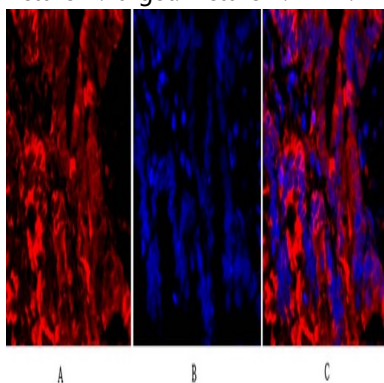
Western blot analysis of lysates from MCF-7, COLO, and HepG2 cells, using Tubulin alpha Antibody. The lane on the right is blocked with the synthesized peptide.



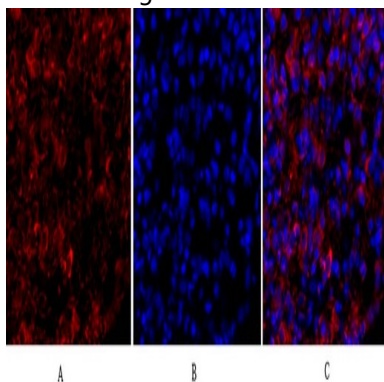
Immunofluorescence analysis of human-lung tissue. 1, Tubulin  $\alpha$  Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of human-lung tissue. 1, Tubulin  $\alpha$  Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

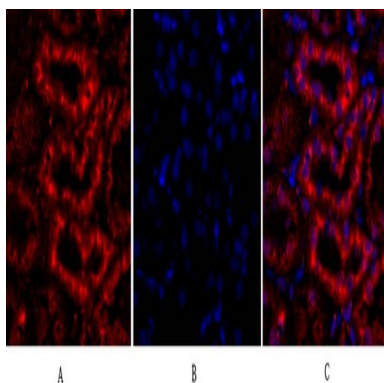


Immunofluorescence analysis of rat-lung tissue. 1, Tubulin  $\alpha$  Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

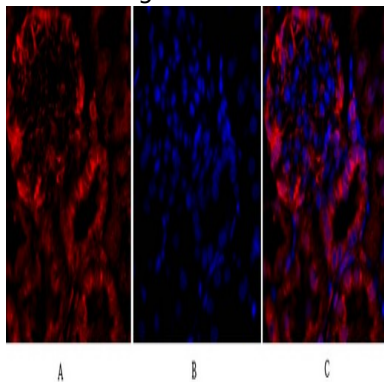


Immunofluorescence analysis of rat-lung tissue. 1, Tubulin  $\alpha$  Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

**Product Name: Tubulin  $\alpha$  Rabbit Polyclonal Antibody**  
**Catalog #: APRab19422**



Immunofluorescence analysis of rat-kidney tissue. 1, Tubulin  $\alpha$  Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of rat-kidney tissue. 1, Tubulin  $\alpha$  Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

## Note

For research use only.