

## **Tubulin α Polyclonal Antibody**

Catalog No: YT5431

Reactivity: Human; Mouse; Rat

**Applications:** WB;IHC;IF;ELISA

Target: Tubulin a

**Fields:** >>Phagosome;>>Apoptosis;>>Tight junction;>>Gap junction;>>Alzheimer

disease;>>Parkinson disease;>>Amyotrophic lateral sclerosis;>>Huntington disease;>>Prion disease;>>Pathways of neurodegeneration - multiple diseases;>>Pathogenic Escherichia coli infection;>>Salmonella infection

Gene Name: TUBA1A/TUBA1B/TUBA1C

**Protein Name:** Tubulin alpha-1A chain/Tubulin alpha-1B chain/Tubulin alpha-1C chain

**Human Gene Id:** 7846/10376/84790

**Human Swiss Prot** 

No:

Mouse Gene Id: 22142/22143/22146

**Rat Gene Id:** 64158/500929/100909441

Rat Swiss Prot No: P68370/Q6P9V9/Q6AYZ1

**Immunogen :** Synthesized peptide derived from human Tubulin α around the non-acetylation

site of K112.

**Specificity:** Tubulin a Polyclonal Antibody detects endogenous levels of Tubulin a protein

only when acetylation at K112.

Q71U36/P68363/Q9BQE3

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

**Dilution :** WB 1:500 - 1:2000. IHC: 1:100-1:300. ELISA: 1:20000.. IF 1:50-200

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**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

**Storage Stability:** -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 50kD

**Cell Pathway:** Gap junction; Pathogenic Escherichia coli infection;

**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.

**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 alphachain.,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

Subcellular Location:

Cytoplasm, cytoskeleton.

**Expression :** Expressed at a high level in fetal brain.

**Sort :** 23743

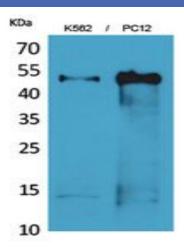
No4:

Host: Rabbit

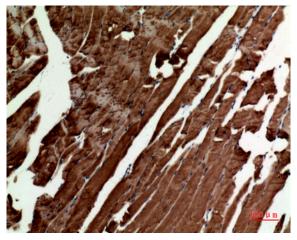
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Modifications: Unmodified

## **Products Images**



Western Blot analysis of K562, PC12 cells using Tubulin  $\alpha$  Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded mousemuscle, antibody was diluted at 1:100