

For Research Use Only

# Acetyl-Tubulin (Lys40) Monoclonal antibody, PBS Only

Catalog Number: 66200-1-PBS



## Basic Information

<b>Catalog Number:</b> 66200-1-PBS	<b>GenBank Accession Number:</b> NM_006009	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 100ug, Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 7846	<b>CloneNo.:</b> 7E5H8
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q71U36	
<b>Isotype:</b> IgG1	<b>Full Name:</b> tubulin, alpha 1a	
	<b>Calculated MW:</b> 52 kDa	
	<b>Observed MW:</b> 50-55 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA, Indirect ELISA

**Species Specificity:**  
human, mouse, rat, pig, canine

## Background Information

Tubulin, composed of heterodimers of alpha and beta tubulin, is the mainly component of microtubules which play important roles in cell motility, mitosis, and intracellular vesicle transport. Both alpha and beta tubulin undergo several posttranslational modifications such as polyglutamylation and acetylation/deacetylation. Tubulin acetylation occurs on lysine-40 at the N-terminal of alpha tubulin and is conserved across species. The histone deacetylase HDAC6 and SIRT2 has been identified as tubulin deacetylases. Reversible acetylation of alpha tubulin may be implicated in regulating microtubule stability, cell motility, and axon regeneration. The level of acetylated tubulin has been linked to epithelial malignancies and sensitivity to chemotherapy. In addition, acetylated tubulin has been widely used as a marker for primary cilia. This antibody is specific to the acetylated tubulin; it does not recognize non-acetylated tubulin. (24268707, 23881549)

## Storage

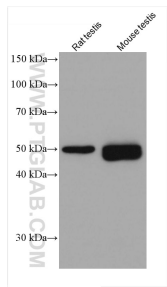
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

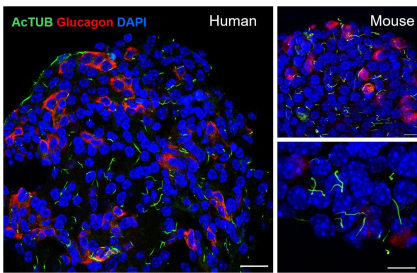
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

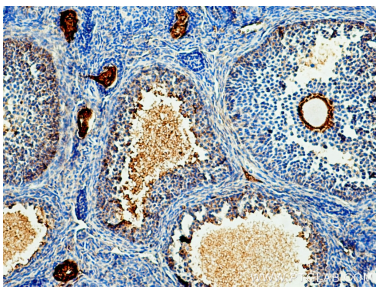
Selected Validation Data



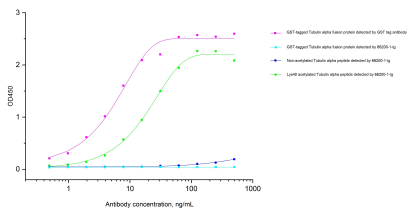
Various lysates were subjected to SDS PAGE followed by western blot with 66200-1-Ig (Acetyl-Tubulin (Lys40) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 66200-1-PBS in a different storage buffer formulation.



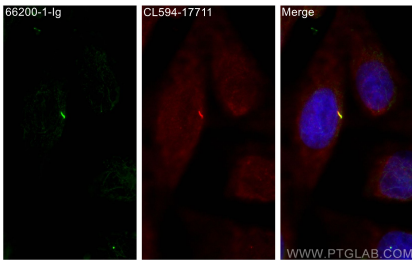
(left) Confocal image of a single-plane cross-section of a healthy human islet, showing primary cilia on both alpha cells (glucagon, red) and non-alpha cells (non-red). Acetylated alpha tubulin, cilia (green, Cat. No 66200-1-Ig, 1:400), nuclei (blue), scale 20 μm. (right) Primary cilia in wildtype B6 mouse islets: acetylated alpha tubulin (green, Cat. No 66200-1-Ig, 1:400), glucagon (red), nuclei (blue), single-plane images, scales 10 μm. (Fig from Dr. Jing Hughes) This



Immunohistochemical analysis of paraffin-embedded mouse ovary tissue slide using 66200-1-Ig (Acetyl-Tubulin (Lys40) antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66200-1-PBS in a different storage buffer formulation.



Specificity validation by indirect ELISA. Indirect ELISA was carried out by coating E.coli expressed GST-tagged Tubulin alpha (70 ng/well), non-acetylated Tubulin alpha, and Lys40 acetylated Tubulin alpha (with excessive amount) followed by blocking and adding serial diluted GST tag primary antibody (Cat.NO. 66001-2-Ig) and Acetylated Tubulin antibody 66200-1-Ig respectively. HRP-Goat anti-mouse secondary antibody was used for detection.



Immunofluorescent analysis of (4% PFA) fixed MDCK cells using Acetyl-Tubulin (Lys40) antibody (66200-1-Ig, Clone: 7E5H8) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1), CoraLite®594 ARL13B antibody (CL594-17711, red). This data was developed using the same antibody clone with 66200-1-PBS in a different storage buffer formulation.