

**beta Tubulin**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP22104a****Specification**

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**beta Tubulin - Product Information**

Application	IF, WB, FC,E
Primary Accession	<a href="#">P99024</a>
Other Accession	<a href="#">O17299</a> , <a href="#">P12456</a> , <a href="#">P09203</a> , <a href="#">O24560</a> , <a href="#">O9YHC3</a> , <a href="#">O27U48</a> , <a href="#">O17449</a> , <a href="#">P36221</a> , <a href="#">O6EVK8</a> , <a href="#">O13885</a> , <a href="#">O4R5B3</a> , <a href="#">O7TMM9</a> , <a href="#">P85108</a> , <a href="#">O6B856</a> , <a href="#">O9BVA1</a> , <a href="#">O9CWF2</a> , <a href="#">O3KRE8</a> , <a href="#">P52275</a> , <a href="#">P32882</a> , <a href="#">P83130</a> , <a href="#">P61858</a> , <a href="#">P61857</a> , <a href="#">P13602</a> , <a href="#">O2T9S0</a> , <a href="#">P09206</a> , <a href="#">O13509</a> , <a href="#">O60HC2</a> , <a href="#">O9ERD7</a> , <a href="#">O4ORB4</a> , <a href="#">O3ZBU7</a> , <a href="#">P04350</a> , <a href="#">O4R4X8</a>
Reactivity Predicted	Mouse, Rat C.Elegans, Chicken, Drosophila, Human, Monkey, Bovine, Xenopus, Hamster, Pig
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	49671

**beta Tubulin - Additional Information****Gene ID** 22154**Other Names**

Tubulin beta-5 chain, Tubb5

**Target/Specificity**

This antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 46-78 amino acids from human.

**Dilution**

IF~~1:25

WB~~1:2000

FC~~1:25

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

beta Tubulin is for research use only and not for use in diagnostic or therapeutic procedures.

## beta Tubulin - Protein Information

**Name** Tubb5

**Function** Tubulin is the major constituent of microtubules, a cylinder consisting of laterally associated linear protofilaments composed of alpha- and beta-tubulin heterodimers. Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms. Below the cap, tubulin dimers are in GDP-bound state, owing to GTPase activity of alpha-tubulin.

### Cellular Location

Cytoplasm, cytoskeleton

### Tissue Location

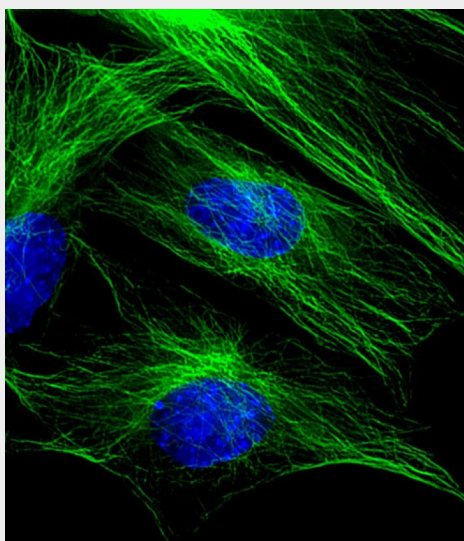
Ubiquitously expressed with highest levels in spleen, thymus and immature brain. Expressed in embryonic brain, including throughout the developing cortex and in the subventricular zone. Also found in radial glial cells, intermediate progenitors, migrating neurons and postmitotic neurons (PubMed:23246003). Expressed in skin and developing hair follicle (PubMed:26637975)

## beta Tubulin - Protocols

Provided below are standard protocols that you may find useful for product applications.

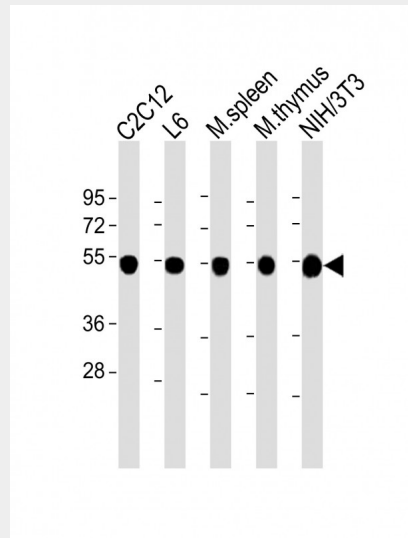
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## beta Tubulin - Images

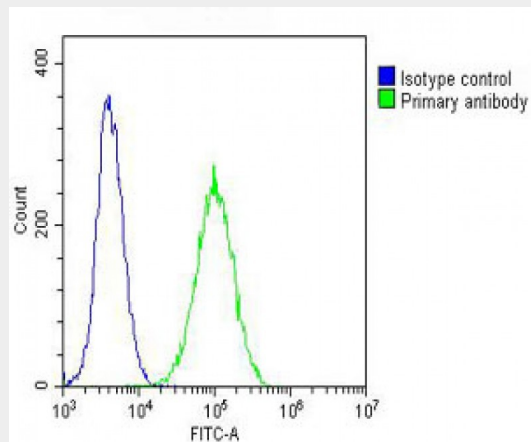


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized C2C12 (mouse myoblast cell line) cells labeling beta Tubulin with AP22104a at 1/25 dilution,

followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on C2C12 cell line. The nuclear counter stain is DAPI (blue).



All lanes : Anti-beta Tubulin at 1:2000 dilution Lane 1: C2C12 whole cell lysate Lane 2: L6 whole cell lysate Lane 3: mouse spleen lysate Lane 4: mouse thymus lysate Lane 5: NIH/3T3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Overlay histogram showing NIH/3T3 cells stained with AP22104a (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22104a, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >10, 000 events was performed.

### beta Tubulin - Background

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.

### beta Tubulin - References

Wang D.,et al.J. Cell Biol. 103:1903-1910(1986).  
Carninci P.,et al.Science 309:1559-1563(2005).  
Church D.M.,et al.PLoS Biol. 7:E1000112-E1000112(2009).  
Lubec G.,et al.Submitted (JUL-2007) to UniProtKB.  
Lewis S.A.,et al.J. Cell Biol. 101:852-861(1985).

**beta Tubulin - Citations**

- [Phosphatases Decrease Water and Urea Permeability in Rat Inner Medullary Collecting Ducts](#)
- [Aldosterone Decreases Vasopressin-Stimulated Water Reabsorption in Rat Inner Medullary Collecting Ducts](#)