

# Anti-Beta III Tubulin Antibody

0805-3



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IHC-P, FC
<b>Molecular Wt:</b>	Predicted band size: 50 kDa

**Description:** 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. TUBB3 plays a critical role in proper axon guidance and maintenance. Binding of NTN1/Netrin-1 to its receptor UNC5C might cause dissociation of UNC5C from polymerized TUBB3 in microtubules and thereby lead to increased microtubule dynamics and axon repulsion. Plays a role in dorsal root ganglion axon projection towards the spinal cord.

**Immunogen:** Synthetic peptide within N-terminal Human Neuron-specific class III  $\beta$ -tubulin.

**Positive control:** Hela cell lysate, HepG2, NIH/3T3, rat brain tissue, rat kidney tissue, human colon cancer tissue.

**Subcellular location:** Cytoplasm. Cytoskeleton. Microtubule, Cell projection.

**Database links:** SwissProt: Q13509 Human | Q9ERD7 Mouse | Q4QRB4 Rat

## Recommended Dilutions:

<b>WB</b>	1:5,000-1:10,000
<b>IF-Cell</b>	1:50-1:200
<b>IHC-P</b>	1:100-1:400
<b>FC</b>	1:50-1:100

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 25% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Immunogen affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

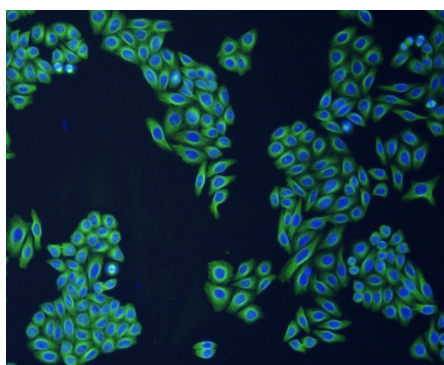
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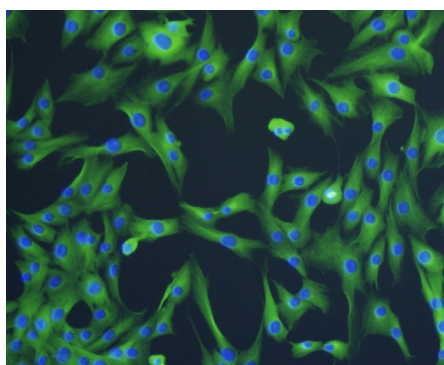
## Images



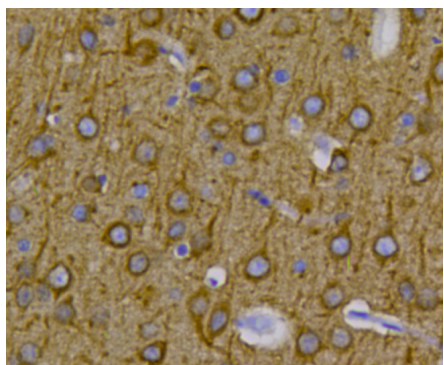
**Fig1:** Western blot analysis of Beta III Tubulin on HeLa cell lysate using anti-Beta III Tubulin antibody at 1/10,000 dilution.



**Fig2:** ICC staining Beta III Tubulin in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig3:** ICC staining Beta III Tubulin in NIH/3T3 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig4:** Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-Beta III Tubulin antibody. Counter stained with hematoxylin.

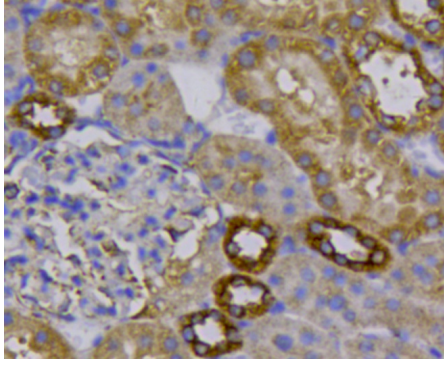
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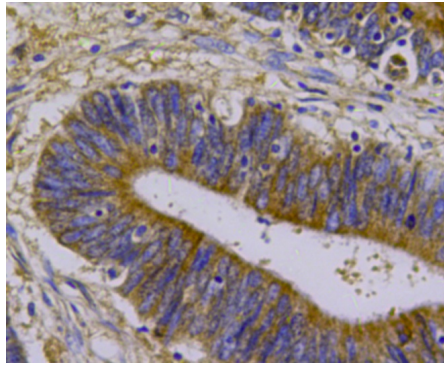
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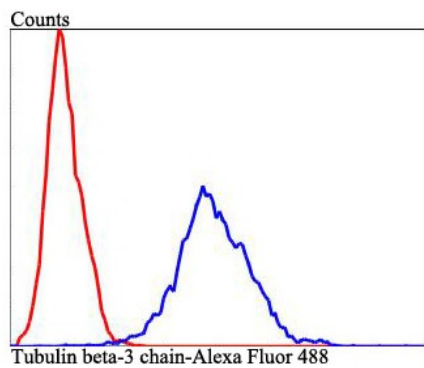
  
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**Fig5:** Immunohistochemical analysis of paraffin-embedded rat kidney tissue using anti-Beta III Tubulin antibody. Counter stained with hematoxylin.



**Fig6:** Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-Beta III Tubulin antibody. Counter stained with hematoxylin.



**Fig7:** Flow cytometric analysis of HeLa cells with Beta III Tubulin antibody at 1/100 dilution (blue) compared with an unlabelled control (cells without incubation with primary antibody; red). Alexa Fluor 488-conjugated goat anti-rabbit IgG was used as the secondary antibody.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Tischfield M A et al. Human TUBB3 mutations perturb microtubule dynamics, kinesin interactions, and axon guidance. *Cell* 140:74-87 (2010).
2. Poirier K et al. Mutations in the neuronal  $\alpha$ -tubulin subunit TUBB3 result in malformation of cortical development and neuronal migration defects. *Hum Mol Genet* 19:4462-4473 (2010).

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