

# Product Datasheet

## beta-III Tubulin Antibody (EP1569Y) NB110-57611

Unit Size: 0.1 ml

Store at -20C. Avoid freeze-thaw cycles.

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**NB110-57611**

beta-III Tubulin Antibody (EP1569Y)

<b>Product Information</b>	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	This product is unpurified. The exact concentration of antibody is not quantifiable.
<b>Storage</b>	Store at -20C. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	EP1569Y
<b>Preservative</b>	0.01% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Tissue culture supernatant
<b>Buffer</b>	49% PBS, 0.05% BSA and 50% Glycerol
<b>Target Molecular Weight</b>	50 kDa
<b>Product Description</b>	
<b>Host</b>	Rabbit
<b>Gene ID</b>	10381
<b>Gene Symbol</b>	TUBB3
<b>Species</b>	Human, Mouse, Rat, Zebrafish
<b>Marker</b>	Neuronal Marker
<b>Immunogen</b>	A synthetic peptide corresponding to the C-term of human class III Beta-Tubulin was used as immunogen.
<b>Notes</b>	Produced using Abcam's RabMab® technology. RabMab® technology is covered by the following U.S. Patents, No. 5,675,063 and/or 7,429,487.
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation
<b>Recommended Dilutions</b>	Western Blot 1:1000-10000, Flow Cytometry 1:10, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:100-250, Immunoprecipitation 1:40, Immunohistochemistry-Paraffin 1:50-100, Immunohistochemistry-Frozen 1:100



## Publications

Eriksson I, Vainikka L, Wöster P, Öllinger K Lysosomal function and intracellular position determine the malignant phenotype in malignant melanoma *The Journal of investigative dermatology* 2023-03-03 [PMID: 36871659] (ICC/IF, Human)

Mollinari C, De Dominicis C, Lupacchini L et al. Detection of Pathological Markers of Neurodegenerative Diseases following Microfluidic Direct Conversion of Patient Fibroblasts into Neurons *International journal of molecular sciences* 2022-02-15 [PMID: 35216271] (ICC/IF, Human)

Inada, E;Saitoh, I;Kubota, N;Iwase, Y;Murakami, T;Sawami, T;Yamasaki, Y;Sato, M; Increased Expression of Cell Surface SSEA-1 is Closely Associated with Naive-Like Conversion from Human Deciduous Teeth Dental Pulp Cells-Derived iPS Cells *Int J Mol Sci* 2019-04-03 [PMID: 30987116] (ICC/IF, Human)

Inada E, Saitoh I, Watanabe S et al. PiggyBac transposon-mediated gene delivery efficiently generates stable transfectants derived from cultured primary human deciduous tooth dental pulp cells (HDDPCs) and HDDPC-derived iPS cells. *Int J Oral Sci* 2015-09-14 [PMID: 26208039] (ICC/IF, Human)

Wang YY, Wu HI, Hsu WL et al. In vitro growth conditions and development affect differential distributions of RNA in axonal growth cones and shafts of cultured rat hippocampal neurons *Mol. Cell. Neurosci.* 2014-06-28 [PMID: 24983517] (ICC/IF, Rat)

### Details:

Tubulin Beta 3 antibody used for ICC-IF on cultured rat hippocampal neurons, fixed in 4% PFA for 30 min, permeabilized with 0.05% Triton X-100 -PBS for 15 min, 1:100 primary dilution - incubation for 2h at 37C (Fig. 2B )

Imamura T, Ishizuka O, Lei Z, Hida S, Sudha GS, Kato H, Nishizawa O. Bone Marrow-Derived Cells Implanted into Radiation-Injured Urinary Bladders Reconstruct Functional Bladder Tissues in Rats. *Tissue Eng Part A.* 2012-05-14 [PMID: 22480258] (IF/IHC, ICC/IF, Rat)





**Immunohistochemistry Protocol for Tubulin Beta 3 Antibody (NB110-57611)**

## Immunohistochemistry Protocol for Paraffin-embedded Tissues

**1. Solutions and reagents**

## 1.1. Xylene

1.2. Ethanol, anhydrous denatured, histological grade (100%, 95%, 70%)

## 1.3. Washing buffer:

TBST washing buffer: 1XTBS/0.1% Tween-20

To prepare stock solution of 10X TBS: add 24.2 g Trizma base and 80 g sodium chloride to 1L of dH<sub>2</sub>O. Adjust pH to 7.6.Working solution. 1XTBST/0.1% Tween-20: add 100ml 10XTBS to 900 ml dH<sub>2</sub>O. Add 1 ml Tween-20 and mix well.1.4. Distilled water (dH<sub>2</sub>O)

## 1.5. Antigen Retrieval Solution:

0.01M Sodium Citrate Buffer, pH 6.0

To prepare stock solutions:

Solution A. 0.1 M citric acid solution: dissolve 21.0 g of citric acid, monohydrate (C<sub>6</sub>H<sub>8</sub>O<sub>7</sub>.H<sub>2</sub>O) in 1 liter of dH<sub>2</sub>O.Solution B. 0.1M sodium citrate solution: dissolve 29.4 g trisodium citrate dihydrate (C<sub>6</sub>H<sub>5</sub>Na<sub>3</sub>O<sub>7</sub>.2H<sub>2</sub>O) in 1 liter of dH<sub>2</sub>O.Working solution: Add 9 ml of Stock solution A and 41 ml of stock solution B to 450 ml of dH<sub>2</sub>O. Adjust pH to 6.0.

## 1.6. 3% Hydrogene Peroxide

## 1.7. Blocking buffer:

PBS (Dulbeccos Phosphate Buffered Salts, 1X, catalog #21-031-CV from Mediatech, Inc.) + 10% serum (serum origin depends on the host of the secondary antibody)

## 1.8. Hematoxylin QS (catalog #H-3404 from Vector Laboratories, Inc.)

## 1.9. Permanent Mounting medium (VectaMount, catalog# H-5000 Vector Laboratories, Inc.)

**2. Protocol****2.1. Deparaffinization/Rehydration**

2.1.1. Heat slides in an oven at 65C for 1 hour.

2.1.2. De-paraffinize/hydrate using the following series of washes: two Xylene washes (5 min each), followed by two 100% ethanol rinses (5 min each), followed by 95% ethanol, 70% ethanol, 50% ethanol, 30% ethanol, followed by H<sub>2</sub>O and a TBST wash for 5 min on a shaker.**2.2. Antigen Retrieval**

2.2.1. Immerse slides into staining dish containing Antigen Retrieval Solution.

2.2.2. Place covered staining dish into the rice cooker. Add 120 ml of dH<sub>2</sub>O.

2.2.3. When cook is turned to warm (about 20 to 30 min), unplug the cooker and remove the staining dish to the bench top.

2.2.4. Allow to cool down, without cover, for 20 min.

**2.3. Staining**

2.3.1. Wash slides with TBST for 5 min on a shaker.

2.3.2. Inactivate endogenous peroxidase by covering tissue with 3% hydrogen peroxide for 10 min.

2.3.3. Wash slides three times with TBST (3 min each on a shaker).

2.3.4. Block slides with the blocking solution for 1 hour.

2.3.5. Dilute primary antibody in the blocking buffer per recommendation on the data sheet.

2.3.6. Apply primary antibody to each section and incubate overnight in the humidified chamber (4C).

2.3.7. Wash slides three times with TBST (3 min each on a shaker).

2.3.8. Apply to each section secondary HRP-conjugated anti-rabbit antibody diluted in the blocking solution per manufacturers recommendation; incubate for 1 hour at room temperature.

2.3.9. Wash slides three times with TBST (3 min each on a shaker).

2.3.10. Add freshly prepared DAB substrate to the sections.

2.3.11. Incubate tissue sections with the substrate at room temperature until suitable staining develops (generally 2 to 5 min).

2.3.12. Rinse sections with water.

2.3.13. Counterstain with Hematoxylin.

2.3.14. Rinse sections with water.

2.3.15. Dehydrate samples using two rinses with 100% Ethanol (20 dips per rinse) followed by two rinses with Xylene (30 dips per rinse).

2.3.16. Mount coverslips on slides using Permount medium.



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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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