

# Product Datasheet

## beta-III Tubulin Antibody (TU-20) - BSA Free NB600-1018

Unit Size: 0.1 mg

Store at 4C. Do not freeze.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

**Reviews: 1** **Publications: 15**

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:  
[www.novusbio.com/NB600-1018](http://www.novusbio.com/NB600-1018)

Updated 10/23/2024 v.20.1

**Earn rewards for product  
reviews and publications.**

Submit a publication at [www.novusbio.com/publications](http://www.novusbio.com/publications)

Submit a review at [www.novusbio.com/reviews/destination/NB600-1018](http://www.novusbio.com/reviews/destination/NB600-1018)



**NB600-1018**

beta-III Tubulin Antibody (TU-20) - BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	1 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Monoclonal
Clone	TU-20
Preservative	15mM Sodium Azide
Isotype	IgG1
Purity	Protein A purified
Buffer	PBS (pH 7.4)

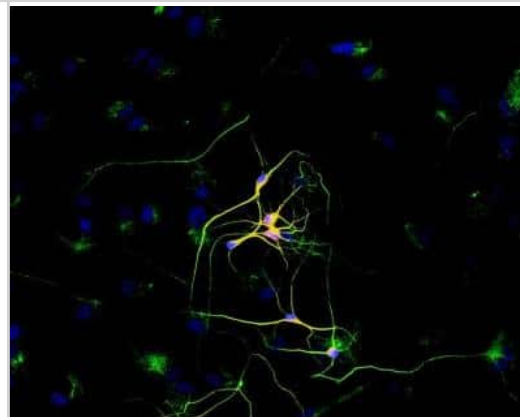
Product Description	
Host	Mouse
Gene ID	10381
Gene Symbol	TUBB3
Species	Human, Mouse, Rat, Canine
Reactivity Notes	Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Mouse-On-Mouse blocking reagent may be needed for IHC and ICC experiments to reduce high background signal. You can find these reagents under catalog numbers PK-2200-NB and MP-2400-NB. Please contact Technical Support if you have any questions. Rat reactivity reported in scientific literature (PMID: 23984759).
Marker	Neuronal Marker
Specificity/Sensitivity	The antibody TU-20 recognizes C-terminal peptide sequence ESESQGPK (aa 441-448) of neuron-specific human betaIII-tubulin.
Immunogen	Peptide (C) 441-448 coupled to maleimide-activated keyhole limpet hemocyanin via cysteine added to the N-terminus of the neuron-specific peptide.

Product Application Details	
Applications	Western Blot, Flow (Intracellular), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1-2 ug/ml, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 10 ug/ml, Flow (Intracellular) 1-4 ug/ml
Application Notes	Western Blot - Sample preparation: Mix lysate with reducing Laemmli SDS-PAGE sample buffer. Application note: Reducing conditions. Immunohistochemistry-Paraffin sections - Staining technique: Standard ABC technique (DAB+) Pretreatment: 0.1% pepsin (trypsin) in 0.1 M HCl; incubation 30 min in RT; or High temperature citrate buffer antigen retrieval

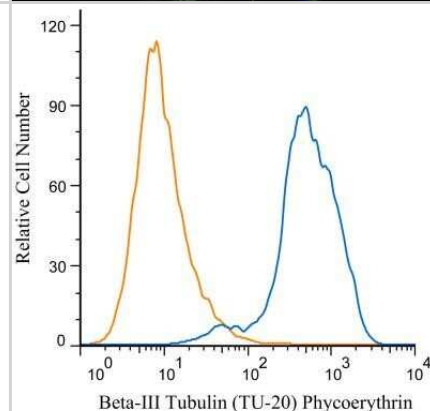


## Images

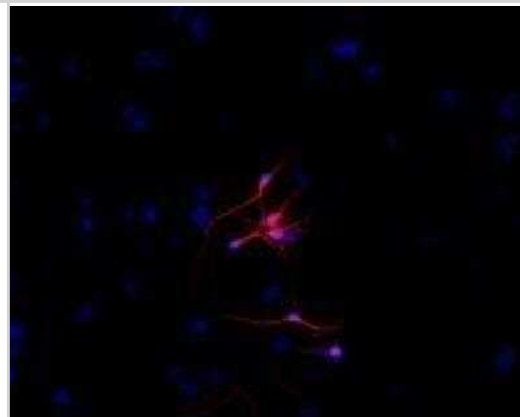
Immunocytochemistry/Immunofluorescence: beta-III Tubulin Antibody (TU-20) [NB600-1018] - Merged image of co-staining with anti-beta-tubulin (TU-06; green) Superposition of red and green colours provided yellow staining. Nuclei were stained with DNA-binding dye (blue).



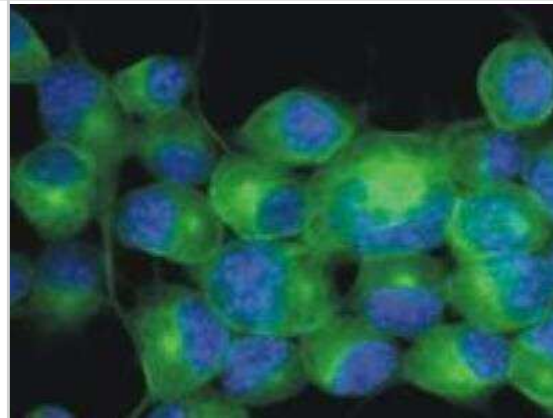
Flow Cytometry: beta-III Tubulin Antibody (TU-20) [NB600-1018] - An intracellular stain was performed on SH-SY5Y cells with beta-III Tubulin (TU-20) antibody NB600-1018PE (blue) and a matched isotype control NBP2-27287PE (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Phycoerythrin.



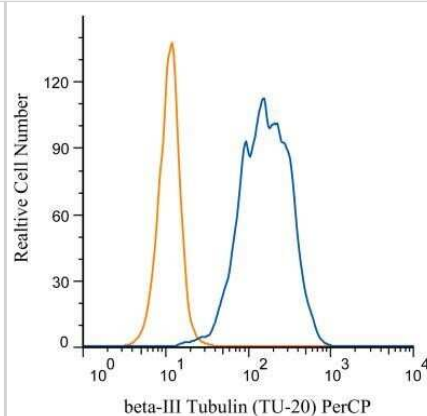
Immunocytochemistry/Immunofluorescence: beta-III Tubulin Antibody (TU-20) [NB600-1018] - Staining of P-19 mouse embryonal carcinoma cell line stimulated to neuronal differentiation by retinoic acid. 2A - Microtubules decorated with neuron-specific anti-betaIII-tubulin (TU-20; red).



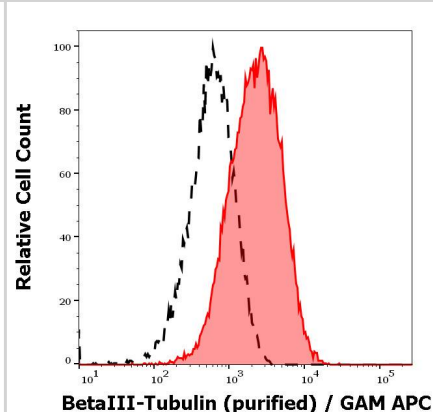
Immunocytochemistry/Immunofluorescence: beta-III Tubulin Antibody (TU-20) [NB600-1018] - Staining of Neuro2a mouse neuroblastoma cell line using anti-betaIII-tubulin (TU-20; green; 3 ig/ml). Nuclei were stained with DAPI (blue).



Flow Cytometry: beta-III Tubulin Antibody (TU-20) [NB600-1018] - Analysis of PerCP conjugate of NB600-1018. An intracellular stain was performed on SH-SY5Y cells with beta-III Tubulin (TU-20) antibody NB600-1018PCP (blue) and a matched isotype control NBP2-27287PCP (orange). Cells were fixed with 4% PFA and then permea



Staining of betaIII tubulin (red) in tissue sections of murine brain expressing GFP in some of its neurons (green). Mouse monoclonal antibody TU-20 (anti-betaIII tubulin) was detected with goat anti-mouse IgG1 conjugated with Alexa Fluor 555.



## Publications

Ryo Hotta, Weikang Pan, Sukhada Bhave, Nandor Nagy, Rhian Stavely, Takahiro Ohkura, Kumar Krishnan, Geoffrey de Couto, Richard Myers, Luis Rodriguez-Borlado, Alan J. Burns, Allan M. Goldstein Isolation, Expansion, and Endoscopic Delivery of Autologous Enteric Neuronal Stem Cells in Swine Cell Transplantation 2023-12-04 [PMID: 38049927]

Stemick J Compensatory mechanisms and therapeutic approaches in neuronal protein aggregation disorders Thesis 2023-01-01 (FLOW, Rat)

Krach F, Wheeler EC, Regensburger M Et al. Aberrant NOVA1 function disrupts alternative splicing in early stages of amyotrophic lateral sclerosis Acta Neuropathol 2022-07-01 [PMID: 35778567] (FLOW, Human)

Details:

Citation using the Alexa Fluor 405 version of this antibody.

Amar F, Corona C, Husson J et al. Rapid ATF4 Depletion Resets Synaptic Responsiveness after cLTP eNeuro 2021-06-03 [PMID: 33980608] (ICC/IF, Rat)

Martins F, Serrano JB, Muller T et al. BRI2 Processing and its Neuritogenic Role Are Modulated by Protein Phosphatase 1 Complexing. J. Cell. Biochem. 2017-02-08 [PMID: 28176357] (Human)

Draberova E, Lukas Z, Ivanyi D et al. Expression of class III beta-tubulin in normal and neoplastic human tissues Histochem Cell Biol 1998-03-01 [PMID: 9541471]

Details:

This citation used the FITC version of this antibody.

Jirasek T, Cipro S, Musilova A et al. Expression of class III beta-tubulin in colorectal carcinomas: an immunohistochemical study using TU-20 & TuJ-1 antibody Indian J Med Res 2009-01-01 [PMID: 19287064]

Details:

This citation used the FITC version of this antibody.

Theodorou E, Dalembert G, Heffelfinger C et al. A high throughput embryonic stem cell screen identifies Oct-2 as a bifunctional regulator of neuronal differentiation *Genes Dev* 2009-03-01 [PMID: 19270158]

Details:

This citation used the FITC version of this antibody.

Katsetos CD, Draberova E, Smejkalova B et al. Class III beta-Tubulin and gamma-Tubulin are Co-expressed and form Complexes in Human Glioblastoma Cells *Neurochem Res* 2007-01-01 [PMID: 17406983]

Details:

This citation used the FITC version of this antibody.

Jirasek T, Pisarikova E, Viklicky V, Mandys V. Expression of class III beta-tubulin in malignant epithelial tumours: an immunohistochemical study using TU-20 and TuJ-1 antibodies *Folia Histochem Cytobiol* 2007-01-01 [PMID: 17378245]

Details:

This citation used the FITC version of this antibody.

Kukharskyy V, Sulimenko V, Macurek L et al. Complexes of gamma-tubulin with nonreceptor protein tyrosine kinases Src and Fyn in differentiating P19 embryonal carcinoma cells *Exp Cell Res* 2004-08-01 [PMID: 15242776]

Details:

This citation used the FITC version of this antibody.

Peknicova J, Kubatova A, Sulimenko V et al. Differential subcellular distribution of tubulin epitopes in boar spermatozoa: recognition of class III beta-tubulin epitope in sperm tail *Biol Reprod* 2001-09-01 [PMID: 11514327]

Details:

This citation used the FITC version of this antibody.

More publications at <http://www.novusbio.com/NB600-1018>





### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NB600-1018**

---

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)
NB500-620	beta-III Tubulin Antibody (TU-20) [FITC]

---

### **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.

For more information on our 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

Earn gift cards/discounts by submitting a review: [www.novusbio.com/reviews/submit/NB600-1018](http://www.novusbio.com/reviews/submit/NB600-1018)

Earn gift cards/discounts by submitting a publication using this product:  
[www.novusbio.com/publications](http://www.novusbio.com/publications)

