

# beta-3 Tubulin Monoclonal Antibody (TU-20)

Product Details	
Size	100 µg
Species Reactivity	Human, Many, Mouse, Rat
Published Species	Human
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	TU-20
Conjugate	Unconjugated
Immunogen	Peptide (C) 441-448 coupled to maleimide-activated keyhole limpet hemocyanin via cysteine added to the N-terminus of the neuron-specific peptide
Form	Liquid
Concentration	1 mg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.4
Contains	15mM sodium azide
Storage conditions	4° C, do not freeze
RRID	AB_1070721

Applications	Tested Dilution	Publications
Western Blot (WB)	1-2 µg/mL, 90 min	1 Publication
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Paraffin) (IHC (P))	10 µg/mL	-
Immunocytochemistry (ICC/IF)	Assay-dependent	3 Publications
Flow Cytometry (Flow)	1-4 µg/mL	-

## Product Specific Information

This antibody recognizes the C-terminal peptide sequence ESESQGPK (aa 441-448) of neuron-specific human beta III-tubulin.

For immunohistochemistry applications, this product requires protein pretreatment (0.1% trypsin) in 0.1 M HCl; incubate for 30 minutes at room temperature.

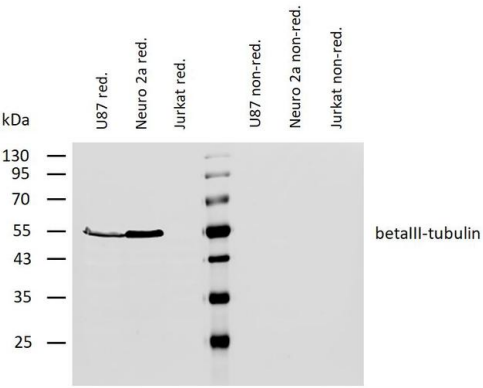
Antibodies to this protein (and modification) were previously sold as part of a Thermo Scientific Cellomics High Content Screening Kit. This replacement antibody is now recommended for researchers who need an antibody for high content cell based assays. It has been thoroughly tested and validated for cellular immunofluorescence (IF) applications. Further optimization including the selection of the most appropriate fluorescent Dylight conjugated secondary antibody may have to be performed for your high content assay.

Western Blot: Reducing conditions.

Product Images For beta-3 Tubulin Monoclonal Antibody (TU-20)

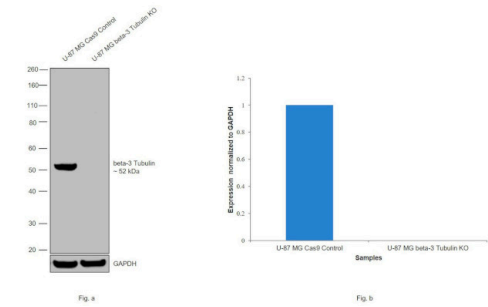
beta-3 Tubulin Antibody (MA1-19187) in WB

Western blotting analysis of human betaIII-tubulin using mouse Monoclonal antibody TU-20 (Product # MA1-19187) on lysates of U87 cells and Neuro 2a cells (and Jurkat cells as a negative control) under reducing and non-reducing conditions. Nitrocellulose membrane was probed with 2µg/mL of mouse anti-betaIII-tubulin monoclonal antibody followed by IRDye800-conjugated anti-mouse secondary antibody. A specific band was detected for betaIII-tubulin at approximately 55kDa.



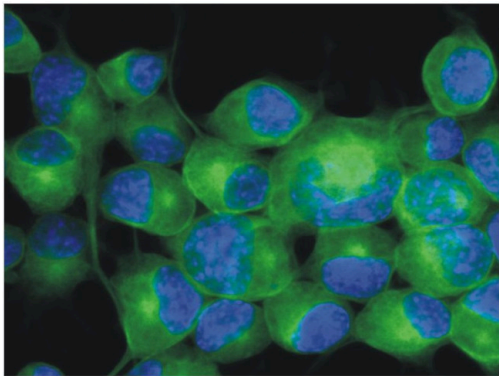
beta-3 Tubulin Antibody (MA1-19187)

Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. A loss of signal was observed for target protein in beta-3 Tubulin (KO) cell line compared to control cell line using Anti-beta-3 Tubulin Monoclonal Antibody (Product # MA1-19187). {KO}



beta-3 Tubulin Antibody (MA1-19187) in ICC/IF

Immunocytochemistry staining of Neuro2a mouse neuroblastoma cell line using anti-betaIII-tubulin (TU-20; green; 3 µg/mL) Monoclonal antibody (Product # MA1-19187). Nuclei were stained with DAPI (blue).



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## Western Blot (1)

Oncotarget

### Progerin impairs chromosome maintenance by depleting CENP-F from metaphase kinetochores in Hutchinson-Gilford progeria fibroblasts.

"MA1-19187 was used in western blot test if progerin elicits spatiotemporal deviations in mitotic processes in Hutchinson-Gilford progeria syndrome fibroblasts"

Authors: Eisch V,Lu X,Gabriel D,Djabali K

Year  
2016

Species  
Human

Dilution  
1:2000

## Immunohistochemistry (1)

Acta neuropathologica

### Novel crystalloid oligodendroglipathy in hereditary spastic paraplegia.

"MA1-19187 was used in immunohistochemistry to study crystalloid oligodendroglipathy in hereditary spastic paraplegia"

Authors: Woehrer A,Laszlo L,Finsterer J,Stöllberger C,Furtner J,Rinner W,Molnar K,Budka H,Kovacs GG

Year  
2012

Species  
Human

Dilution  
1:200

## Immunocytochemistry (3)

NPJ Parkinson's disease

### Genomic, transcriptomic, and metabolomic profiles of hiPSC-derived dopamine neurons from clinically discordant brothers with identical PRKN deletions.

"MA1-19187 was used in Immunocytochemistry-immunofluorescence to identify genetic differences which could potentially, at least partially, contribute to the discordant clinical PD presentation of the two brothers."

Authors: Cukier HN,Kim H,Griswold AJ,Codreanu SG,Prince LM,Sherrod SD,McLean JA,Dykxhoorn DM,Ess KC,Hedera P,Bowman AB,Neely MD

Year  
2022

Species  
Human

Dilution  
1:500

Marine drugs

### Stingray Venom Proteins: Mechanisms of Action Revealed Using a Novel Network Pharmacology Approach.

"MA1-19187 was used in Immunocytochemistry to develop a novel network pharmacology approach based on multi-omics functional data integration to predict how stingray venom disrupts the physiological systems of target animals."

Authors: Kirchhoff KN,Billion A,Voolstra CR,Kremb S,Wilke T,Vilcinskis A

Year  
2021

Species  
Human

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