

beta-3 Tubulin Monoclonal Antibody (2G10)

Product Details

Size	20 µL
Species Reactivity	Bovine, Guinea pig, Hamster, Human, Mouse, Pig, Rabbit, Rat
Published Species	Rabbit, Rat, Amphibian, Zebrafish, Human, Mouse
Host/Isotype	Mouse / IgG2a
Class	Monoclonal
Type	Antibody
Clone	2G10
Conjugate	Unconjugated
Immunogen	A synthetic peptide corresponding to amino acids 436-450 from rat neuronal specific beta-3 tubulin.
Form	Liquid
Concentration	1 mg/mL
Purification	Protein A
Storage buffer	PBS with 1mg/mL BSA, 30% glycerol
Contains	0.05% sodium azide
Storage conditions	-20°C
RRID	AB_2536830

Applications	Tested Dilution	Publications
Western Blot (WB)	1:500-1:2,000	4 Publications
Immunohistochemistry (IHC)	Assay-dependent	8 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:50-1:200	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	Assay-dependent	1 Publication
Immunocytochemistry (ICC/IF)	1:50-1:200	16 Publications
Flow Cytometry (Flow)	1:50	-
Immunoprecipitation (IP)	5 µg	-

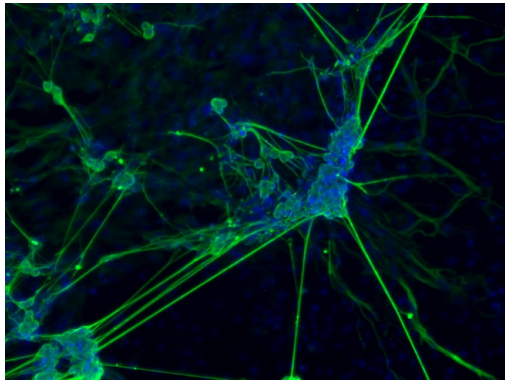
Product Specific Information

MA1-118 was successfully used to detect E18 Sparague Dawley primary cortical neurons.

MA1-118 can be used for immunofluorescence analysis of beta III tubulin in the ectoderm derived from human embryonic stem cells.

Western blot analysis of MA1-118 detects an ~50 kDa protein in neuronal-type cells. In bovine, a unknown band at ~32 kDa is also detected. MA1-118 shows specificity to beta-3 Tubulin and is non-reactive to lysates from non-neuronal cell types (e.g. HeLa cell lysate).

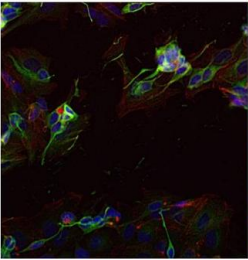
Product Images For beta-3 Tubulin Monoclonal Antibody (2G10)



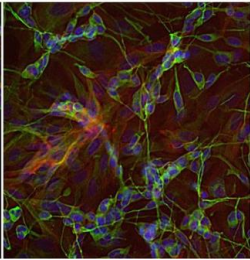
beta-3 Tubulin Antibody (MA1-118X) in ICC/IF

Immunofluorescence analysis of beta III tubulin (green) in the ectoderm derived from human ES cells. Embryoid bodies (EBs) were generated from the H9 embryonic stem cell line (WiCell Research Institute, WA09) using Gibco® KnockOut™ Serum Replacement. After four days in suspension culture, EBs were plated on Geltrex™-coated tissue culture-treated polystyrene and continuously cultured for 21 days. EB cultures were then fixed and permeabilized according to the 3-Germ Layer Immunocytochemistry Kit (Product # A25538) and stained with anti-beta III-tubulin monoclonal antibody (Product # MA1-118, 1:200 dilution, 5 uL/mL final) at 4°C overnight. Secondary staining was completed using Alexa Fluor™ 488-conjugated anti-mouse IgG (Product # A-11001) and DAPI (Product # D1306) for nuclear DNA (blue) for 1 h at room temperature. Images were taken on EVOS® FL Auto Imaging System at 10X magnification.

Untreated



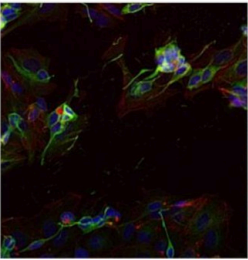
Retinoic acid



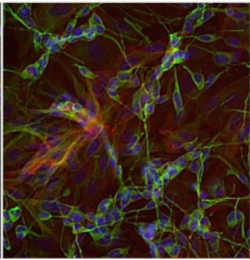
beta-3 Tubulin Antibody (MA1-118X)

The specificity of mouse anti-Beta-3-Tubulin monoclonal antibody (Product # MA1-118) was demonstrated in the immunofluorescence analysis the detection of increased expression of Beta-3-Tubulin in SHSY5Y cells upon treatment with 10 uM Retinoic acid compared to untreated cells. {TM}

Untreated



Retinoic acid



beta-3 Tubulin Antibody (MA1-118X) in ICC/IF

Immunofluorescent analysis of beta-3 Tubulin in SHSY5Y cells (human neuroblast) either left untreated (left panel) or treated with 10uM retinoic acid (right panel) for 72 hours. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature. Cells were blocked with 1% Blocker BSA (Product # 37525) for 15 minutes at room temperature. Cells were probed without (left panel) or with (right panel) a beta-3 Tubulin monoclonal antibody (Product # MA1-118) at a dilution of 1:100 for at least 1 hour at room temperature, washed with PBS, and incubated with a DyLight 488-conjugated goat anti-mouse IgG secondary antibody (Product # 35502). F-Actin (red) was stained with DyLight-554 Phalloidin (Product # 21834) and nuclei (blue) were stained with Hoechst 33342 dye (Product # 62249). Images were taken on a Thermo Scientific ToxInsight at 20X magnification.

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Western Blot (4)

<p>Science advances</p> <p>CREB3L2-ATF4 heterodimerization defines a transcriptional hub of Alzheimer's disease gene expression linked to neuropathology.</p> <p>"MA1-118 was used in Western Blotting to reveal differential transcription factor dimerization as a mechanism linking disease stimuli to the development of pathogenic cellular states."</p> <p>Authors: Gouveia Roque C,Chung KM,McCurdy EP,Jagannathan R,Randolph LK,Herline-Killian K,Baleriola J,Hengst U</p>	<p>Year 2023</p> <p>Species Rat</p> <p>Dilution 1:20000</p>
<p>Frontiers in molecular neuroscience</p> <p>Growth Cone Tctp Is Dynamically Regulated by Guidance Cues.</p> <p>"MA1-118 was used in Western Blotting to study the dynamic regulation of growth cone translationally controlled tumour protein by Netrin-1 and Ephrin-A1."</p> <p>Authors: Gouveia Roque C,Holt CE</p>	<p>Year 2022</p> <p>Species Rat</p> <p>Dilution 1:10,000</p>

View more WB references on thermofisher.com

Immunohistochemistry (8)

<p>The Journal of clinical investigation</p> <p>Silencing miR-21-5p in sensory neurons reverses neuropathic allodynia via activation of TGF--related pathway in macrophages.</p> <p>"MA1-118 was used in Immunohistochemistry-immunofluorescence to show that miR-21 conditional deletion in DRG neurons was coupled with lack of upregulation of chemokine CCL2 after nerve injury and reduced accumulation of CCR2-expressing macrophages, which showed TGF--related pathway activation and acquired an M2-like antinociceptive phenotype."</p> <p>Authors: Zeboudj L,Sideris-Lamprtsas G,Silva R,Al-Mударis S,Picco F,Fox S,Chambers D,Malcangio M</p>	<p>Year 2023</p> <p>Species Mouse</p> <p>Dilution 1:1,000</p>
<p>The Journal of clinical investigation</p> <p>Mechanisms and treatments of neuropathic itch in a mouse model of lymphoma.</p> <p>"MA1-118 was used in Immunohistochemistry to suggest distinct mechanisms underlying acute, chronic, and neuropathic itch."</p> <p>Authors: Chen O,He Q,Han Q,Furutani K,Gu Y,Olexa M,Ji RR</p>	<p>Year 2023</p> <p>Species Mouse</p> <p>Dilution 1:200</p>

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More applications with references on thermofisher.com

- IHC (P) (1)
- IHC (F) (1)
- ICC/IF (16)

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