abcam

ab18207

Anti-beta III Tubulin antibody - Neuronal Marker

Anti-beta III Tubulin antibody - Neuronal Marker (ab18207) is a rabbit polyclonal antibody detecting beta III Tubulin in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Catshark, Common marmoset, Dogfish, Human, Mouse, Rat**.

- Over 620 publications
- Trusted since 2005

Lab Essentials | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Polyclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Purification technique	Affinity purification Immunogen
Specificity	The immunogen used for this product shares 75% homology with TUB (Tubby protein homolog, Uniprot: P50607). In western blot, we observe a specific band at ~55kDa which is not seen in KO cell lines. An additional band below this band of interest is seen at ~50kDa in both the WT and KO cells which could correspond to the protein TUB. Please note that cross-reactivity with this protein has not been confirmed experimentally. TUB is localized notably in high concentrations in the nucleoli of brain neurons with lower protein levels in the cytoplasm. Please, therefore, be aware that ICC experiments may need to be optimised. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above. As an alternative antibody, we would recommend our recombinant rabbit monoclonal antibody ab52623 which has been shown to specific in both WB and ICC using KO cells.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Rat
Dilution info	1 µg/mL
Notes	-

Expected

Species	Human
Dilution info	-
Notes	-

Species	Mouse
Dilution info	-
Notes	-

Species	Catshark
Dilution info	1 µg/mL
Notes	-

Species	Dogfish
Dilution info	1 µg/mL
Notes	-

Species	Common marmoset
Dilution info	1 µg/mL
Notes	-

Predicted

Species	Pig, Rhesus monkey

Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	0.01 µg for 10^6 Cells
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody. We recommend Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody.

Expected

Species	Rat
Dilution info	-
Notes	-

Species	Mouse
Dilution info	-
Notes	-

Species	Catshark
Dilution info	0.01 µg for 10^6 Cells
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody. We recommend Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody.

Species	Dogfish
Dilution info	0.01 µg for 10^6 Cells
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody. We recommend Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody.

Species	Common marmoset

Dilution info	0.01 µg for 10^6 Cells
Notes	ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody. We recommend Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody.

Predicted

Species	Pig, Rhesus monkey
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Expected

Species	Rat
Dilution info	-
Notes	-

Species	Mouse
Dilution info	-
Notes	-

Species	Common marmoset
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Species	Catshark
Dilution info	1/2000

Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Species	Dogfish
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Predicted

Species	Pig, Rhesus monkey
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1 µg/mL
Notes	-

Species	Mouse
Dilution info	1 µg/mL
Notes	-

Species	Rat
Dilution info	1 µg/mL
Notes	-

Expected

Species	Catshark
Dilution info	1 µg/mL
Notes	-

Species	Dogfish

Dilution info	1 µg/mL
Notes	-

Species	Common marmoset
Dilution info	1 µg/mL
Notes	-

Predicted

Species	Pig, Rhesus monkey
Dilution info	-
Notes	-

Target data

See full target information TUBB3

Function	Tubulin is the major constituent of microtubules, protein filaments consisting of alpha- and beta-tubulin heterodimers (PubMed:34996871, PubMed:38305685, PubMed:38609661). Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms (PubMed:34996871, PubMed:38305685, PubMed:38609661). Below the cap, alpha-beta tubulin heterodimers are in GDP-bound state, owing to GTPase activity of alpha-tubulin (PubMed:34996871, PubMed:38609661). TUBB3 plays a critical role in proper axon guidance and maintenance (PubMed:20074521). 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 (PubMed:28483977). Plays a role in dorsal root ganglion axon projection towards the spinal cord (PubMed:28483977).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Anti-beta III Tubulin antibody - Neuronal Marker (ab18207) is a rabbit polyclonal antibody and is validated for use in Flow Cyt (Intra), ICC/IF, IHC-P, WB.

Anti-beta III Tubulin antibody - Neuronal Marker (ab18207) has been cited over 627 times in peer reviewed journals and is trusted by the scientific community.

Abcam's high quality validation processes ensure Anti-beta III Tubulin antibody - Neuronal Marker (ab18207) has high sensitivity and specificity.

The specificity of Anti-beta III Tubulin antibody - Neuronal Marker (ab18207) has been confirmed by testing in knockout samples.

Anti-beta III Tubulin antibody - Neuronal Marker (ab18207) has 67 independent reviews from customers.

beta III Tubulin antibodies are often used as loading controls in Western Blot. Anti-beta III Tubulin antibody - Neuronal Marker has been verified in Western Blot samples and detects a band at 50kDa Molecular weight.

Anti-beta III Tubulin antibody - Neuronal Marker (ab18207) specifically detects beta III Tubulin (UniProt ID: Q13509; Molecular weight: 50kDa) and is sold in 100 µg selling sizes.

Beta-tubulin III (TUBB3) is a protein that is predominantly expressed in neurons and is a critical component of the microtubule network. It plays a vital role in maintaining the structure and function of neurons. It is a key marker for neurons and is involved in processes such as axon guidance and neuronal differentiation. Abnormal expression of TUBB3 has been associated with several neurological conditions, including congenital fibrosis of the extraocular muscles (CFEOM) and cortical dysplasia, complex with other brain malformations (CDCBM), underscoring its critical role in brain development.

Browse our curated portfolio of extensively validated antibodies and assays, with antibodies to over 90% of key targets in major glioblastoma pathways– including EGF, VEGF, MAPK, Wnt, NFKB, and PI3K/AkT/MTOR – all in one place.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Beta III Tubulin also known as beta3 tubulin beta tubulin III and bIII tubulin is a microtubule component that plays integral mechanical roles in cells. With a mass of approximately 55 kDa this protein is part of the tubulin family. You find beta III tubulin predominantly in neurons within the central and peripheral nervous systems. However it sometimes appears in other tissues under certain conditions like stress or disease.

Biological function summary	Beta III tubulin contributes to neuronal differentiation and axonal guidance due to its incorporation into the microtubule network. As a component of the microtubule complex beta III tubulin regulates the dynamic instability of microtubules influencing their assembly and disassembly rates. Its expression in developing neurons supports growth cones as they extend axons to their targets facilitating proper neuronal circuit formation.
Pathways	Beta III tubulin actively participates in the neuronal microtubule dynamics pathway. This pathway is essential for the development and maintenance of neuronal structure and function. Beta III tubulin interacts closely with other tubulin isoforms and microtubule-associated proteins (MAPs) to ensure proper microtubule function. In addition the protein indirectly influences the MAPK signaling pathway which affects cellular processes such as growth and differentiation.
Associated diseases and disorders	Beta III tubulin has strong links to certain neurological conditions and cancers. In neurodegenerative disorders like Alzheimer's disease abnormal regulation of beta III tubulin contributes to impaired neuronal functions. Additionally it is associated with cancers like glioblastoma where upregulated expression is used as a marker for diagnosis and prognosis. Through its involvement in these diseases beta III tubulin indirectly affects interactions with proteins involved in cellular stress responses and neurodegeneration such as tau protein.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

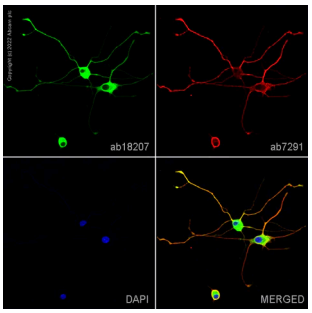
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

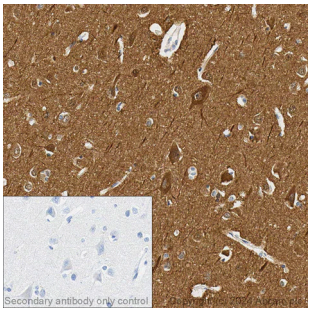
18 product images



Immunocytochemistry/ Immunofluorescence - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

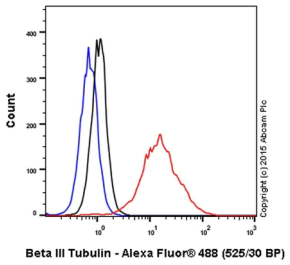
Beta III Tubulin Immunocytochemistry/ Immunofluorescence staining of PC12 cells using rabbit Anti-beta III Tubulin antibody

ab18207 staining beta III Tubulin in PC12 cells. The cells were fixed with 100% methanol (5 min) permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab18207 at 1µg/ml and ab7291 Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with ab150081 Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488) pre-adsorbed at 1/1000 dilution (shown in green) and ab150120 Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594) pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Immunohistochemical analysis of formalin fixed paraffin embedded human cerebrum labelling beta III tubulin with ab18207 at a concentration of 0.32 µg/ml. The immunostaining was performed on a Ventana DISCOVERY ULTRA (Roche Tissue Diagnostics) instrument with an OptiView DAB IHC Detection Kit. Heat mediated antigen retrieval was conducted for 32 mins at 100°C with ULTRA cell conditioning solution (CC1, pH 8.5). ab18207 anti-beta III tubulin antibody was incubated at 37°C for 16 mins. Sections were counterstained with Hematoxylin II. Image inset shows absence of staining in secondary antibody only control.

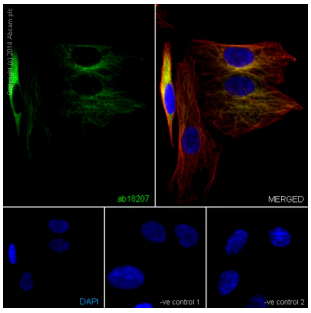


Flow Cytometry (Intracellular) - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Flow Cytometry (Intracellular) staining of U-87MG (Human glioblastoma-astrocytoma epithelial cell line) cells using rabbit Anti-beta III Tubulin antibody

Overlay histogram showing U-87MG (Human glioblastoma-astrocytoma epithelial cell line) cells stained with ab18207 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab18207 0.01µg/1x10^6) for 30 min at 22°C. The secondary antibody used was Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) at 1/4000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (polyclonal) (ab171870 0.01µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

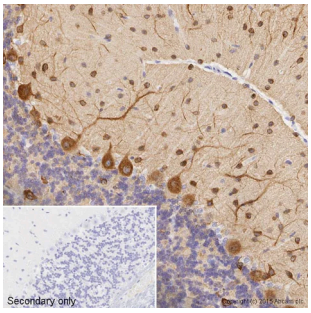
This antibody gave a positive signal in U-87MG cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Triton X-100 for 20 min used under the same conditions.



Immunocytochemistry/ Immunofluorescence - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Immunocytochemistry/ Immunofluorescence staining of SK-N-SH (Human neuroblastoma cell line) cells. using rabbit Anti-beta III Tubulin antibody

ab18207 staining beta III Tubulin in SK-N-SH (Human neuroblastoma cell line) cells. The cells were fixed with 100% methanol (5min) and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated with ab18207 at 1µg/ml and ab7291 at 1µg/ml overnight at +4°C followed by a further incubation at room temperature for 1h with a Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody at 2 µg/ml (shown in green) and Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (ab150120) secondary antibody at 2 µg/ml (shown in pseudo color red). Nuclear DNA was labelled in blue with DAPI. Negative controls: 1– Rabbit primary and anti-mouse secondary antibody; 2 – Mouse primary antibody and anti-rabbit secondary antibody. Controls 1 and 2 indicate that there is no unspecific reaction between primary and secondary antibodies used.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of rat cerebellum tissue using rabbit Anti-beta III Tubulin antibody

IHC image of ab18207 staining beta III Tubulin in rat cerebellum formalin fixed paraffin embedded tissue sections performed on a Leica Bond. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6 epitope retrieval solution 1) for 20 mins. The section was then incubated with ab18207 1:2000 dilution for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. No primary antibody was used in the secondary only control (shown on the inset).
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions primary antibody concentration and antibody incubation times.

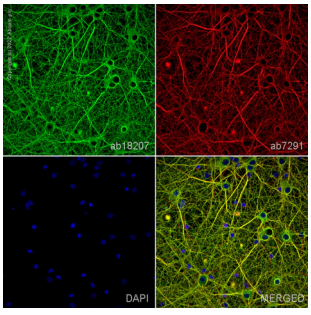


This image is courtesy of Carl Hobbs, King's College London, United Kingdom

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of mouse brain tissue using rabbit Anti-beta III Tubulin antibody

ab18207 at 1/2000 dilution staining mouse brain tissue sections by IHC-P. The tissue was formaldehyde fixed and an enzymatic antigen retrieval step was performed prior to incubation with the antibody for 16 hours. A biotinylated goat anti-rabbit IgG was used as the secondary.

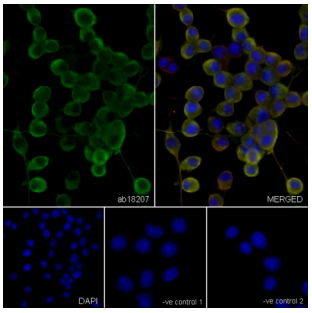


Immunocytochemistry/ Immunofluorescence - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Immunocytochemistry/ Immunofluorescence staining of rat neurons and glia using rabbit Anti-beta III Tubulin antibody

ab18207 staining beta III Tubulin in primary rat neurons/glia DIV14 (prepared from E18 rat hippocampal brain area obtained from Transnetyx Tissue by BrainBits LLC cat.no. SDHEP) cells. The cells were fixed with 100% methanol (5 min) permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab18207 at 1µg/ml and ab7291 Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with ab150081 Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488) pre-adsorbed at 1/1000 dilution (shown in green) and ab150120 Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594) pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).
Also suitable in cells fixed with 4% paraformaldehyde (10 min).

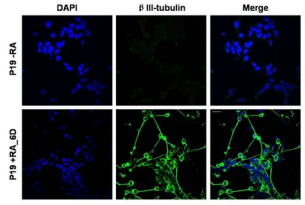
Image was acquired with a high-content analyser (Operetta CLS Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Immunocytochemistry/ Immunofluorescence - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Immunocytochemistry/ Immunofluorescence staining of Neuro-2a cells using rabbit Anti-beta III Tubulin antibody

ab18207 staining beta III Tubulin in Neuro-2a cells. The cells were fixed with 100% methanol (5min) and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated with ab18207 at 1µg/ml and ab7291 at 1µg/ml overnight at +4°C followed by a further incubation at room temperature for 1h with a Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody at 2 µg/ml (shown in green) and Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (ab150120) secondary antibody at 2 µg/ml (shown in pseudo color red). Nuclear DNA was labelled in blue with DAPI.
Negative controls: 1– Rabbit primary and anti-mouse secondary antibody; 2 – Mouse primary antibody and anti-rabbit secondary antibody. Controls 1 and 2 indicate that there is no unspecific reaction between primary and secondary antibodies used.

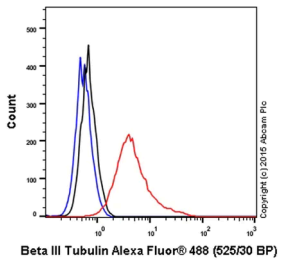


Sheikh, M.A. et al PLoS One. 2013;8(2):e55826. doi: 10.1371/journal.pone.0055826. Epub 2013 Feb 7 Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

Immunocytochemistry/ Immunofluorescence - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-beta III Tubulin antibody

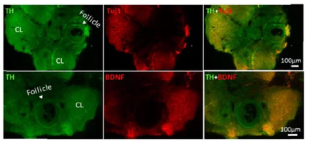
Differential expression of Dnmt1, Dnmt3a, and Dnmt3b during RA induced neuronal differentiation of P19 cells Mouse P19 cells either left untreated (top panel) or RA treated for initial 2 days and further cultured for 4 days without RA (6 days, bottom panel) were immunostained with neuron specific β-III tubulin antibody and nuclei were stained using DAPI. In order to confirm the neuronal morphology, the cells were stained for neuron specific beta III-tubulin (ab18207). RA induced P19 cells showed immunoreactivity against βIII-tubulin, indicating a neuronal phenotype. In contrast, undifferentiated P19 cells were βIII-tubulin negative. (After Figure 1A of Sheikh et al)



Flow Cytometry (Intracellular) - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Flow Cytometry (Intracellular) staining of Neuro 2A cells using rabbit Anti-beta III Tubulin antibody

Overlay histogram showing Neuro 2A cells stained with ab18207 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab18207 0.01µg/1x10^6) for 30 min at 22°C. The secondary antibody used was Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) at 1/4000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (polyclonal) (ab171870 0.01µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control.
Acquisition of >5000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

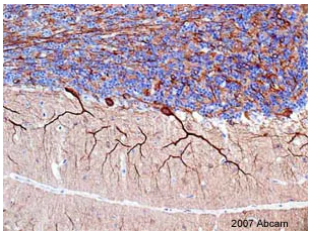


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Courtesy of Feng Y et al. Sci Rep. 2017; 7: 44810. doi: 10.1038/srep44810 Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/.

Beta III Tubulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of mice ovaries using rabbit Anti-beta III Tubulin antibody

Immunohistochemical analysis of adult mice ovaries undergone Clarity processing staining tyrosine hydroxlase (TH) Beta III Tubulin (Tuj1) with ab18207 and brain derived neurotrpic factor (BDNF) with ab72439. Positive staing of Tuj1 and BDNF is evident in the theca cells and corpus luteum.

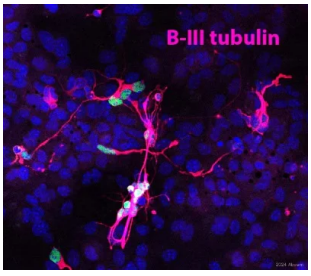


This image is courtesy of Carl Hobbs, King's College London, United Kingdom

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of rat cerebellum tissue using rabbit Anti-beta III Tubulin antibody

ab18207 at 1/2000 dilution staining rat cerebellum tissue sections by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). The tissue was formaldehyde fixed and a heat mediated antigen retrieval step was performed prior to incubation with the antibody for 16 hours. A biotinylated goat polyclonal antibody was used as the secondary.

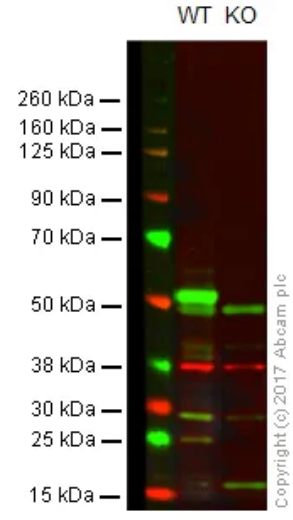


This image is courtesy of a customer review submitted by Lenin Veeraval

Immunocytochemistry/ Immunofluorescence - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Immunocytochemistry/ Immunofluorescence staining of mouse brain using rabbit Anti-beta III Tubulin antibody

Immunocytochemistry analysis of paraformaldehyde-fixed mouse brain staining with ab18207 at 1/200 dilution. Secondary antibody was Alexa Fluor® 568 Donkey Anti-Rabbit IgG. Samples were incubated with the primary antibody with 2% donkey serum in 0.2% TritonX 100 for 16 hours at 27°C. Blocking was done using 10% donkey serum for 2 hours at 28°C.



Western blot - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Western blot staining using rabbit Anti-beta III Tubulin antibody

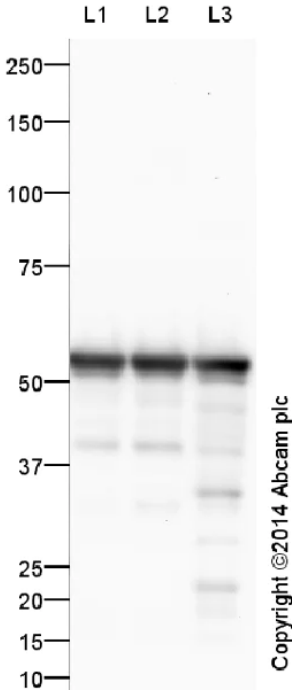
Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: Beta III Tubulin knockout HAP1 whole cell lysate (20 µg)
Lanes 1 - 2: Merged signal (red and green). Green - ab18207 observed at 55 kDa. Red - loading control, ab9484, observed at 37 kDa.

ab18207 was shown to recognize beta III Tubulin in wild-type HAP1 cells as signal was lost in beta III Tubulin knockout cells. An additional cross-reactive band at 50 kDa was observed in wild-type and knockout cells. Due to the immunogen's homology with TUB (Tubby protein homolog, Uniprot: P50607), this lower band could correspond to the TUB protein. Please note that cross-reactivity with this protein has not been confirmed experimentally.

Wild-type and beta III Tubulin knockout samples were subjected to SDS-PAGE. ab18207 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1 µg/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature

All lanes:
Western blot - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Predicted band size: 50 kDa



Western blot - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab18207 overnight at 4°C. Antibody binding was detected using Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody , and visualised using ECL development solution ab133406.
All lanes:
Western blot - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207) at 1 µg/mL

Lane 1:
Brain (Mouse) Tissue Lysate at 10 µg

Lane 2:
Brain (Rat) Tissue Lysate at 10 µg

Lane 3:
Human brain tissue lysate - total protein (ab29466) at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

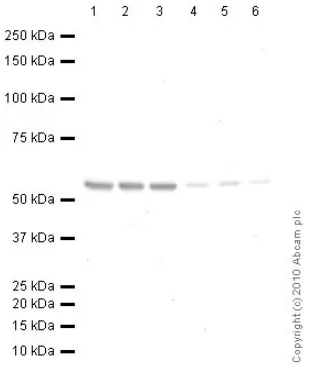
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 50 kDa

Observed band size: 55 kDa

Exposure time: 30s



Western blot - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Western blot staining using rabbit Anti-beta III Tubulin antibody

All lanes:
Western blot - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207) at 1 µg/mL

Lane 1:
Human brain tissue lysate - total protein (ab29466) at 10 µg

Lane 2:
Brain (Mouse) Tissue Lysate at 10 µg

Lane 3:
Brain (Rat) Tissue Lysate at 10 µg

Lane 4:
Human brain tissue lysate - total protein (ab29466) at 10 µg with Human beta III Tubulin peptide (ab18660)

Lane 5:
Brain (Mouse) Tissue Lysate at 10 µg with Human beta III Tubulin peptide (ab18660)

Lane 6:
Brain (Rat) Tissue Lysate at 10 µg with Human beta III Tubulin peptide (ab18660)

Secondary

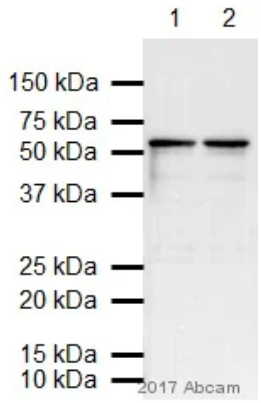
All lanes:
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 50 kDa

Observed band size: 55 kDa

Exposure time: 30s



This image is courtesy of a customer review submitted by Dr Sergi Bayod.

Western blot - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

All lanes:
Western blot - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207) at 1/1000 dilution

All lanes:
Mouse hippocampus tissue lysate at 8 µg

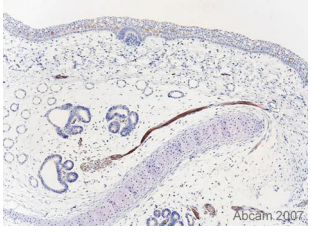
Secondary

All lanes:
Goat anti-rabbit IgG (H&L) at 1/5000 dilution

Predicted band size: 50 kDa

Observed band size: 55 kDa

Exposure time: 10s



This image is courtesy of Carl Hobbs, King's College London, United Kingdom

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta III Tubulin antibody - Neuronal Marker (ab18207)

Beta III Tubulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-beta III Tubulin antibody

Immunohistochemistical staining (Formaldehyde/PFA-fixed paraffin-embedded sections) for Neuron specific beta III Tubulin antibody - Neuronal Marker (ab18207) on Dogfish/Catshark Tissue sections (head: snout region). Antigen retrieval step: Heat mediated. Blocking step: 1% BSA for 10 mins at RT. Primary Antibody used at 1/2000 incubated for 2 hours at RT. Secondary Antibody: Biotin labelled goat anti rabbit IgG (1/300).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.