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Anti-Beta Tubulin TUBB Antibody Picoband® (monoclonal, 2E11)

Catalog Number: M05613-4

About TUBB

Tubulin beta chain is a protein that in humans is encoded by the TUBB gene. This gene encodes a beta tubulin protein. This protein forms a dimer with alpha tubulin and acts as a structural component of microtubules. Mutations in this gene cause cortical dysplasia, complex, with other brain malformations 6. Alternative splicing results in multiple splice variants. There are multiple pseudogenes for this gene on chromosomes 1, 6, 7, 8, 9, and 13.

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Overview

Product Name	Anti-Beta Tubulin TUBB Antibody Picoband® (monoclonal, 2E11)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Beta Tubulin TUBB Antibody Picoband® (monoclonal, 2E11) catalog # M05613-4. Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IF, ICC, WB
Clonality	Monoclonal 2E11
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Mouse
Uniprot ID	P07437

Technical Details

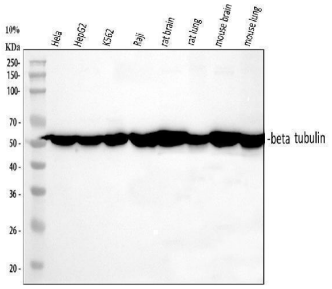
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Beta Tubulin, identical to the related mouse and rat sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western

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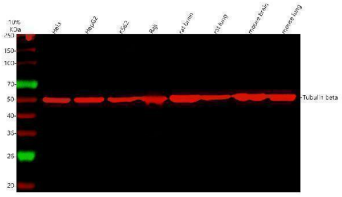
	blot,and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2a
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence,2ug/ml,Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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Anti-Beta Tubulin TUBB Antibody Picoband® (monoclonal, 2E11) (M05613-4) Images



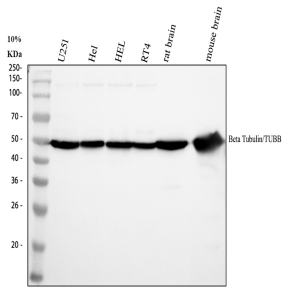
Western blot analysis of Tubulin beta using anti-Tubulin beta antibody (M05613-4). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human Raji whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat lung tissue lysates, Lane 6: mouse brain tissue lysates, Lane 6: mouse lung tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Tubulin beta antigen affinity purified monoclonal antibody (Catalog # M05613-4) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Tubulin beta at approximately 50 kDa. The expected band size for Tubulin beta is at 50 kDa.



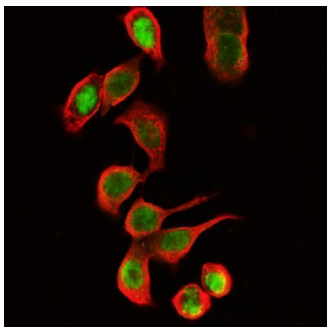
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Western blot analysis of Tubulin beta using anti-Tubulin beta antibody (M05613-4). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat

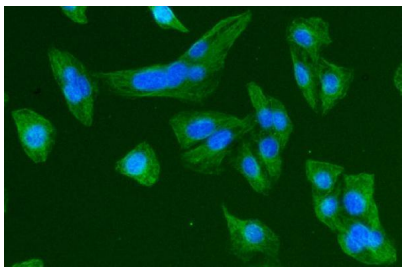
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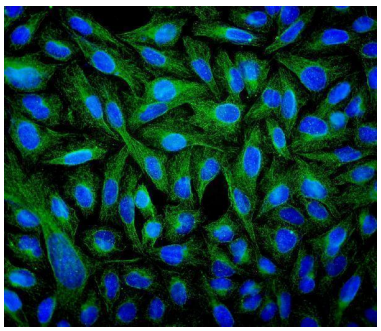
heart tissue lysates, Lane 2: rat skeletal muscle tissue lysates, Lane 3: rat C2C12 whole cell lysates. Lane 4: mouse heart tissue lysates, Lane 5: mouse skeletal muscle tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Tubulin beta antigen affinity purified monoclonal antibody (Catalog # M05613-4) at 0.1 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for Tubulin beta at approximately 50 kDa. The expected band size for Tubulin beta is at 50 kDa.



IF analysis of Tubulin beta using anti-Tubulin beta antibody (M05613-4) and anti-FOSB antibody (A01569-1). Tubulin beta was detected in immunocytochemical section of CACO-2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL mouse anti-Tubulin beta Antibody (M05613-4) and rabbit anti-FOSB antibody (A01569-1) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Mouse IgG (BA1141) and DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) were used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



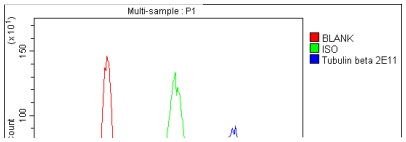
IF analysis of Tubulin beta using anti-Tubulin beta antibody (M05613-4). Tubulin beta was detected in immunocytochemical section of U2OS cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL mouse anti-Tubulin beta Antibody (M05613-4) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



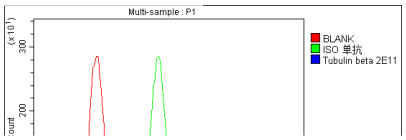
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microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of U937 cells using anti-Tubulin beta antibody M05613-4). Overlay histogram showing U937 cells stained with M05613-4 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Tubulin beta Antibody (M05613-4, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry analysis of HEPA1-6 cells using anti-Tubulin beta antibody M05613-4). Overlay histogram showing HEPA1-6 cells stained with M05613-4 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Tubulin beta Antibody (M05613-4, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

10 Publications Citing This Product

1. PubMed ID: 10.3390/ijms21093321, Niacin Alleviates Dairy Cow Mastitis by Regulating the GPR109A/AMPK/NRF2 Signaling Pathway

2. PubMed ID: 30554401, Shen X,Zhang J,Zhang X,Wang Y,Hu Y,Guo J.Retinoic Acid-Induced Protein 14 (RAI14) Promotes mTOR-Mediated Inflammation Under Inflammatory Stress and Chemical Hypoxia in a U87 Glioblastoma Cell Line.Cell Mol Neurobiol.2019 Mar;39(2):241-254.doi:10.1007/s10571-018-0644-z.Epub 2018 Dec 15.PMID:30554401.

3. PubMed ID: -, Han Zhang,Huaishan Wang,Fei Gao,Jia Yang,Yi Xu,Yi Fu,Menghua Cai,Xue Zhang,Qi Yang,Kexin Tong,Yu Hu,Hui Chen,Chao Ma,Wei He,Jianmin Zhang,TSPO Deficiency Accelerates Amyloid Pathology and Neuroinflammation by Impairing Microglial Phagocytosis,Neurobiology of Aging,2021,,ISSN 0197-4580,https://doi.org/10.1016/j.neurobiolaging.2021.06.020.

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