

## Anti-Alpha-Tubulin TUBA1A Antibody (Monoclonal, DM1A)

Catalog Number: MA1107

### About TUBA1A

Alpha-tubulin (b-alpha-1) mRNA is expressed only in brain with a molecular weight of about 55,000. The 3-prime UTR of b-alpha-1 is more than 80% homologous to the UTR of the rat brain alpha-tubulin gene, IL-alpha-T1. B-alpha-1 encodes a predicted 451-amino acid protein that is 100% identical to the rat homolog and differs by only 2 and 3 amino acids from the pig and chicken homologs, respectively.

### Overview

|                      |                                                                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-Alpha-Tubulin TUBA1A Antibody (Monoclonal, DM1A)                                                                                                                                                 |
| Reactive Species     | Chicken, Human, Mouse, Rat                                                                                                                                                                            |
| Description          | Boster Bio Anti-Alpha-Tubulin TUBA1A Antibody (Monoclonal, DM1A) catalog # MA1107. Tested in IHC, WB applications. This antibody reacts with Chicken, Human, Mouse, Rat.                              |
| Application          | IHC, WB                                                                                                                                                                                               |
| Clonality            | Monoclonal DM1A                                                                                                                                                                                       |
| Formulation          | Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN <sub>3</sub> as preservative.                                                                                                      |
| 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           | Q71U36                                                                                                                                                                                                |

### Technical Details

|                               |                                                                                                                                                                                |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                     | Microtubules from chicken embryo brain.                                                                                                                                        |
| Predicted Reactive Species    | Chicken                                                                                                                                                                        |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P). |
| Cross Reactivity              | No cross-reactivity with other proteins                                                                                                                                        |
| Isotype                       | Mouse IgG1                                                                                                                                                                     |
| Form                          | Lyophilized                                                                                                                                                                    |
| Concentration                 | Adding 1 ml of PBS buffer will yield a concentration of 100 ug/ml.                                                                                                             |
| Purification                  | Ascites                                                                                                                                                                        |

**Suggested Dilutions**

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

Immunohistochemistry (Paraffin-embedded Section), 1-2ug/ml, Human, mouse, rat, chicken, By Heat

Western blot, 1ug/ml, Human, mouse, rat, chicken

## Anti-Alpha-Tubulin TUBA1A Antibody (Monoclonal, DM1A) (MA1107) Images

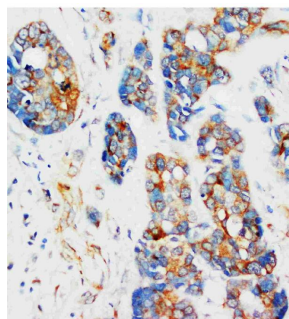


Figure 1. IHC analysis of alpha-Tubulin using anti-alpha-Tubulin antibody (MA1107). alpha-Tubulin was detected in a paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml mouse anti-alpha-Tubulin Antibody (MA1107) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

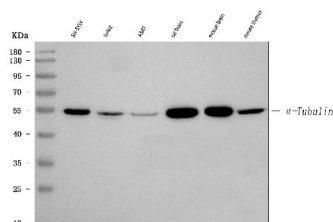


Figure 2. Western blot analysis of alpha-Tubulin using anti-alpha-Tubulin antibody (MA1107).

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 SH-SY5Y whole cell lysates,  
Lane 2: human Jurkat whole cell lysates,  
Lane 3: human A549 whole cell lysates,  
Lane 4: rat brain tissue lysates,  
Lane 5: mouse brain tissue lysates,  
Lane 6: mouse thymus 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-alpha-Tubulin antigen affinity purified monoclonal antibody (Catalog # MA1107) at 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for alpha-Tubulin at approximately 55 kDa. The expected band size for alpha-Tubulin is at 50 kDa.

## 11 Publications Citing This Product

1. PubMed ID: 10.1002/elps.201700143, Novel chemiluminescent Western blot blocking and antibody incubation solution for enhanced antibody-antigen interaction and increased specificity
2. PubMed ID: -, Yu-Yuan Chen, Yin-Peng Bai, Bin Li, Xiao-Bo Zhao, Cheng-Jie Yang, Ying-Qian Liu, Jian-Mei Gao, Jun Guo, Chun Li, Jing-Wen Peng, Zhong-Min Zhao, Zhi-Jun Zhang, Chuan-Rui Xu, Design and Synthesis of Novel 20(S)-alpha-aminophosphonate Derivatives of Camptothecin as Potent Antitumor Agents, Bioorganic Chemistry, 2021, 105065, ISSN 0045-2068, <https://doi.org/10.1016/j.bioorg.2021.105065>.
3. PubMed ID: -, Danyang Chong, Zhong Chen, Shan Guan, Tongyu Zhang, Na Xu, Yue Zhao, Chaojun Li, Geranylgeranyl pyrophosphate-mediated

protein geranylgeranylation regulates endothelial cell proliferation and apoptosis during vasculogenesis in mouse embryo, Journal of Genetics and Genomics, 2021, ISSN 1673-8527, <https://doi.org/10.1016/j.jgg.2021.03.009>.

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