

Anti-alpha-Tubulin Tuba1b Antibody

Catalog Number: A08382

About TUBA1B

Tubulin Loading Control Antibody recognizes microtubules which are involved in a wide variety of cellular activities ranging from mitosis and transport events to cell movement and the maintenance of cell shape. Tubulin itself is a globular protein consisting of two polypeptides (alpha and beta tubulin). Alpha and beta tubulin dimers are assembled to 13 protofilaments that form a microtubule of 22-nm diameter. Tyrosine ligase adds a C-terminal tyrosine to monomeric alpha tubulin. Assembled microtubules can again be detyrosinated by a cytoskeleton-associated carboxypeptidase. Detyrosinated alpha tubulin is referred to as Glu-tubulin. Another post-translational modification of detyrosinated alpha tubulin is C-terminal polyglutamylation, which is characteristic of microtubules in neuronal cells and the mitotic spindle. This antibody makes an excellent loading control. Anti-Alpha-tubulin antibody is ideal for investigators involved in cell cycle protein research.

Overview

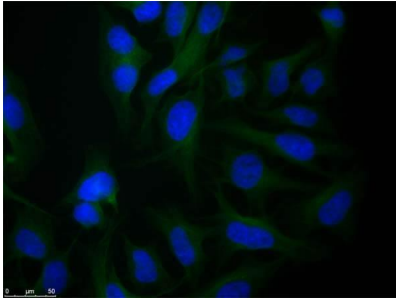
Product Name	Anti-alpha-Tubulin Tuba1b Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-alpha-Tubulin Tuba1b Antibody (Catalog # A08382). Tested in ELISA, IF, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store Anti-Tubulin Loading Control Antibody at -20°C prior to opening. Aliquot Loading Control Antibody contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge Tubulin Loading Control Antibody if not completely clear after standing at room temperature. This Control Antibody is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	P68363

Technical Details

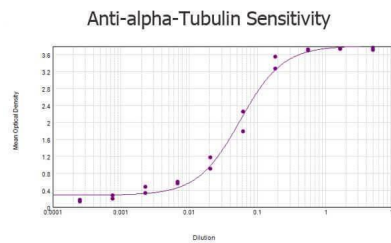
Immunogen	Anti-Tubulin Loading Control Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the C-Terminal region near amino acids 425-451 of Human alpha Tubulin.
Predicted Reactive Species	Bovine, Chicken
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG

Form	Liquid (sterile filtered)
Concentration	1.1mg/ml by UV absorbance at 280 nm
Purification	Anti-Tubulin Loading Control Antibody is directed against human alpha Tubulin protein. The Loading Control Antibody was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest that this antibody would react with alpha Tubulin from a wide range of organisms, including avian, mammalian aquatic, parasitic and alga sources based on 100% homology for the immunogen sequence. Cross-reactivity will occur with all isoforms of alpha tubulin. Such broad reactivity makes this antibody useful as an excellent loading control.
Suggested Dilutions	ELISA: 1:90,000 IHC: 1:500 - 1:2,000 IF Microscopy: 1:500 - 1:2,000 WB: 1:1,000 - 1:5,000 Anti-Tubulin Antibody has been tested for use in ELISA, immunofluorescence, and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~50 kDa in size corresponding to alpha tubulin by western blotting in most cell lysates or extracts.

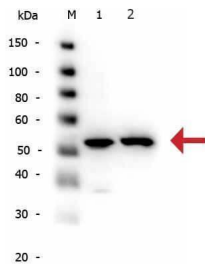
Anti-alpha-Tubulin Tuba1b Antibody (A08382) Images



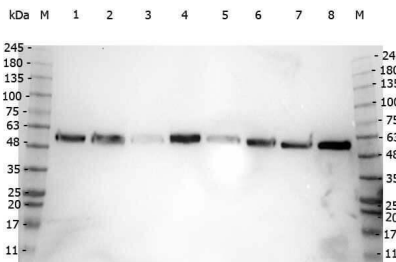
Immunofluorescence microscopy of Rabbit Anti-alpha-Tubulin antibody using HeLa cells fixed with PFA. Anti-alpha-Tubulin Antibody was used at 1 µg/mL, O/N at 4°C. Secondary antibody: Anti-RABBIT IgG DyLight™ 488 Conjugated Preadsorbed at 2 µg/ml for 1 h at RT. Localization: TUBA1B is the major constituent of microtubules in the cytoplasm. Staining: Tubulin as green fluorescent signal with DAPI (blue) nuclear counterstain.



ELISA results of purified Rabbit anti-alpha-Tubulin Antibody tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1µg of conjugate. The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using 3% fish gel, Goat anti-Rabbit IgG Antibody Peroxidase Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rt & Sh Serum Proteins) and TMB ELISA Peroxidase Substrate .



Western Blot of Rabbit anti-alpha-Tubulin antibody. Lane 1: HeLa WCL . Lane 2: NIH/3T3 WCL . Load: 10 µg per lane. Primary antibody: alpha-Tubulin antibody at 1:1,000 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 30 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting for 30 min at RT. Predicted/Observed size: 50 kDa, 50 kDa for alpha-Tubulin. Other band(s): N/A.



Western Blot of Rabbit anti-Alpha-Tubulin antibody. Marker: Opal Pre-stained ladder . Lane 1: HEK293 lysate . Lane 2: HeLa Lysate . Lane 3: MCF-7 Lysate . Lane 4: Jurkat Lysate . Lane 5: A431 Lysate . Lane 6: LNCaP Lysate . Lane 7: A-172 Lysate . Lane 8: NIH/3T3 Lysate . Load: 35 µg per lane. Primary antibody: Alpha-Tubulin antibody at 1:2,000 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:30,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS for 30 min at RT. Predicted/Observed size: 50 kDa for Alpha-tubulin.

Western Blot of Rabbit Anti-Alpha Tubulin Antibody. Lane 1: whole cell lysates from mouse brain . Lane 2: rat brain . Lane 3: A431 cells . Lane 4: Jurkat cells . Lane 5: HeLa cells . Load: 35 µg per lane. Primary antibody: Alpha Tubulin antibody at 1:1,200 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~50 kDa corresponding to alpha



tubulin (arrowhead). Other band(s): none.

14 Publications Citing This Product

1. PubMed ID: 26269769, Endogenous Nodal promotes melanoma undergoing epithelial-mesenchymal transition via Snail and Slug in vitro and in vivo.
2. PubMed ID: 18958584, Prohibitin protects against oxidative stress-induced cell injury in cultured neonatal cardiomyocyte
3. PubMed ID: 19412742, NGFI-B targets mitochondria and induces cardiomyocyte apoptosis in restraint-stressed rats by mediating energy metabolism disorder

Visit bosterbio.com/anti-alpha-tubulin-antibody-a08382-boster.html to see all 14 publications.

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