Anti-alpha-Tubulin (RABBIT) Antibody - 600-401-880

Code: 600-401-880 **Size:** 200 µg

Product Description: Anti-alpha-Tubulin (RABBIT) Antibody - 600-401-880

Concentration: 1.1mg/ml by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	TUBA1B
Species Reactivity	human, mouse, rat. chicken, bovine
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	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.
Synonyms	rabbit anti-alpha-Tubulin Antibody, rabbit anti--tubulin antibody, Tubulin alpha-1B chain, Tubulin alpha-ubiquitous chain, Alpha-tubulin ubiquitous, Tubulin K-alpha-1, TUBA1B, tubulin loading control, Alpha-tubulin, Tubulin alpha-1A, TUBA1A, TUBA3, LIS3
Application Note	Anti-Tubulin Antibody has been tested for use in ELISA 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.
Background	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.
Purity And Specificity	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.
Assay Dilutions	User Optimized
ELISA	1:90,000
Western Blot	1:1,000 - 1:5,000
Immunohistochemistry	1:500 - 1:2,000
IF Microscopy	1:500 - 1:2,000
Other Assays	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	Anti-Tubulin Loading Control Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 427-441 of Human alpha Tubulin.
General Reference	Hall,J.L. and Cowan,N.J. (1985) Structural features and restricted expression of a human alpha-tubulin gene. Nucleic Acids Res. 13 (1), 207-223. Cowan,N.J., Dobner,P.R., Fuchs,E.V. and Cleveland,D.W. (1983) Expression of human alpha-tubulin genes: interspecies conservation of 3' untranslated regions. Mol. Cell. Biol. 3 (10), 1738-1745.

Specific Reference

Hawkins ED, Oliaro J, Kallies A, Belz GT, Filby A, Hogan T, Haynes N, Ramsbottom KM, Van Ham V, Kinwell T, Seddon B, Davies D, Tarlinton D, Lew AM, Humbert PO, Russell SM. (2013) Regulation of asymmetric cell division and polarity by Scribble is not required for humoral immunity. Nat Commun. 2013;4:1801. doi: 10.1038/ncomms2796.

Related Products

200-301-268	Anti-AKT pS473 (MOUSE) Monoclonal Antibody - 200-301-268
200-301-880	Anti-alpha-Tubulin (MOUSE) Monoclonal Antibody - 200-301-880
600-403-880	Anti-alpha-Tubulin (RABBIT) Antibody Peroxidase Conjugated - 600-403-880
600-406-880	Anti-alpha-Tubulin (RABBIT) Antibody Biotin Conjugated - 600-406-880

Related Links

	NCBI - 17986283
http://www.ncbi.nlm.nih.gov/protein/17986283	
UniProtKB - P68363	http://www.uniprot.org/uniprot/P68363

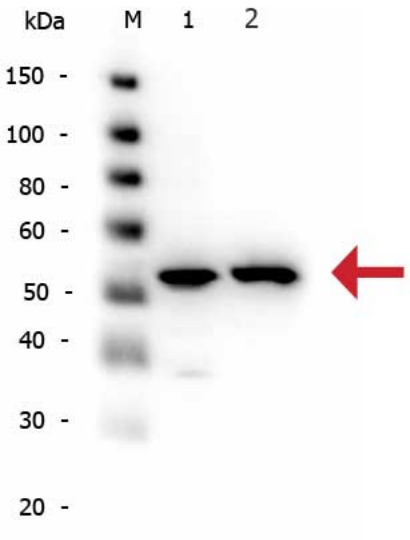
Images

1

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.

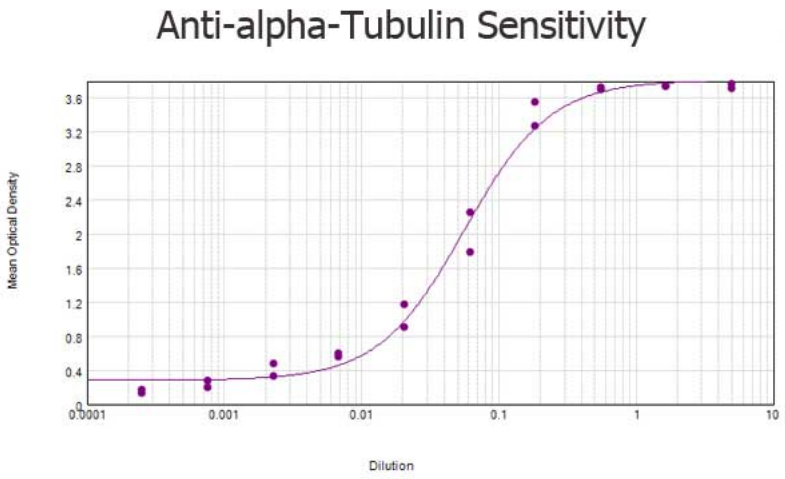
2

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 (p/n 611-103-122) at 1:40,000 for 30 min at RT.Block: Blocking Buffer for Fluorescent Western Blotting (p/n MB-070) for 30 min at RT.Predicted/Observed size: 50 kDa, 50 kDa for alpha-Tubulin. Other band(s): N/A.



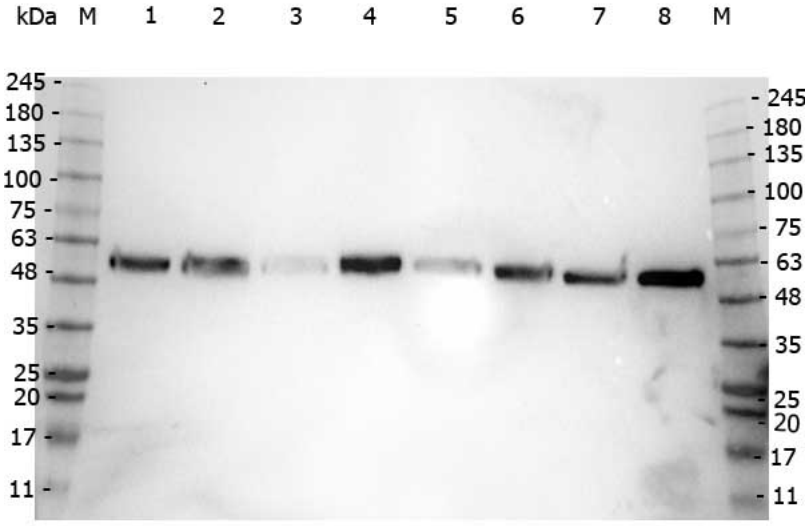
3

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) (p/n 611-103-122) and TMB ELISA Peroxidase Substrate (p/n TMBE-1000).

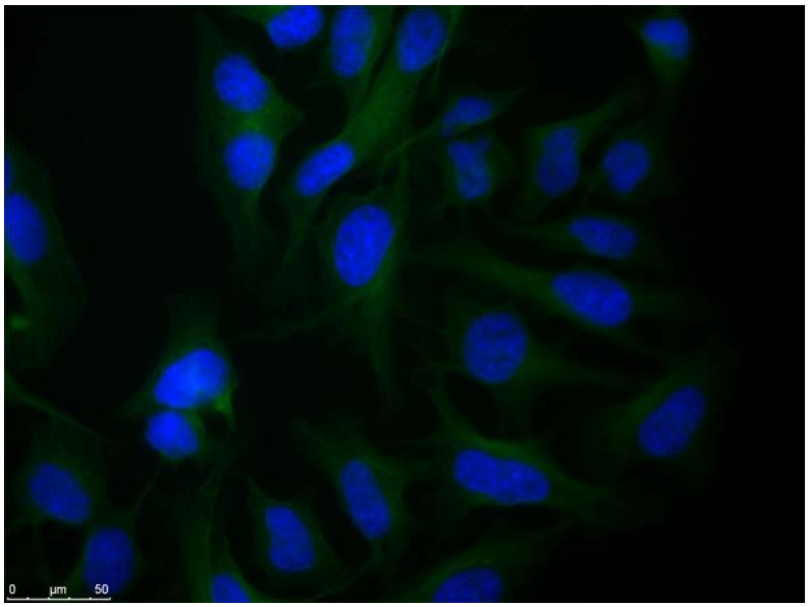


4

Western Blot of Rabbit anti-Alpha-Tubulin antibody. Marker: Opal Pre-stained ladder (p/n MB-210-0500). Lane 1: HEK293 lysate (p/n W09-000-365). Lane 2: HeLa Lysate (p/n W09-000-363).Lane 3: MCF-7 Lysate (p/n W09-000-360).Lane 4: Jurkat Lysate (p/n W09-000-370).Lane 5: A431 Lysate (p/n W09-000-361).Lane 6: LNCaP Lysate (p/n W09-001-GJ9).Lane 7: A-172 Lysate (p/n W09-001-GL5).Lane 8: NIH/3T3 Lysate (p/n W10-000-358). 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 (p/n 611-103-122) 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.



5 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 (p/n 611-741-127) at 2 ug/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.



Disclaimer

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