Datasheet for ABIN129653

anti-alpha Tubulin antibody (Internal Region)

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Overview

Quantity:	200 µg
Target:	alpha Tubulin (TUBA1)
Binding Specificity:	Internal Region
Reactivity:	Human, Mouse, Rat, Chicken, Cow
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This alpha Tubulin antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

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. Immunogen Type: Peptide
Isotype:	IgG
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.

Product Details

Characteristics:	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.
Sterility:	Sterile filtered

Target Details

Target:	alpha Tubulin (TUBA1)
Alternative Name:	alpha-Tubulin (TUBA1 Products)
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. Synonyms: Tubulin alpha-1B chain, Tubulin alpha-ubiquitous chain, Alpha-tubulin ubiquitous Tubulin K-alpha-1, TUBA1B, tubulin loading control
Gene ID:	17986283
UniProt:	P68363
Pathways:	Microtubule Dynamics

Application Details

Application Notes:	Anti-Tubulin Antibody has been tested for use in ELISA and western blot. Specific conditions for

Application Details

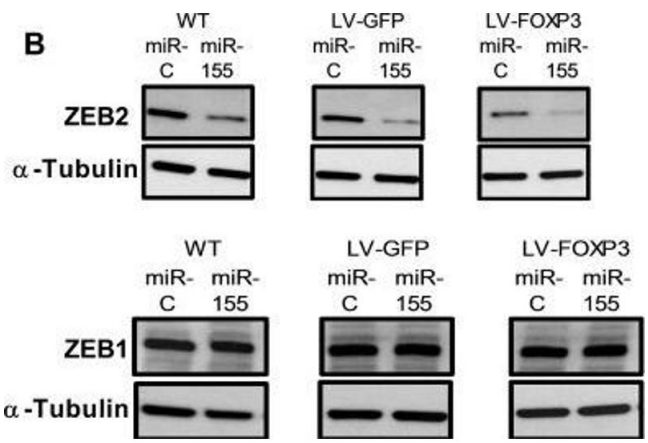
	reactivity should be optimized by the end user. Expect a band at ~50 kDa in size corresponding to alpha tubulin by western blotting in most cell lysates or extracts.
Comment:	Gene Name: TUBA1B
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.1 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	Store vial at 4 °C prior to restoration. For extended storage aliquot contents and freeze at -20 °C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product 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.
Expiry Date:	12 months

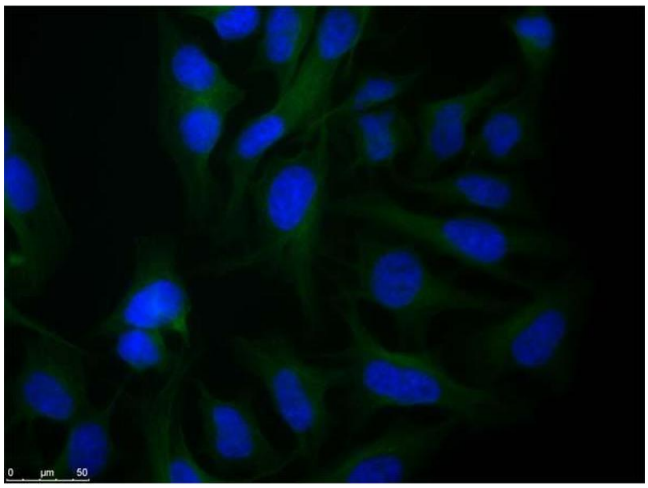
Publications

Product cited in:	Jordan, Buhrman, Sprague, Moore, Gao, Kappler, Slansky: "TCR hypervariable regions expressed by T cells that respond to effective tumor vaccines." in: **Cancer immunology, immunotherapy : CII**, (2012) (PubMed). There are more publications referencing this product on: Product page



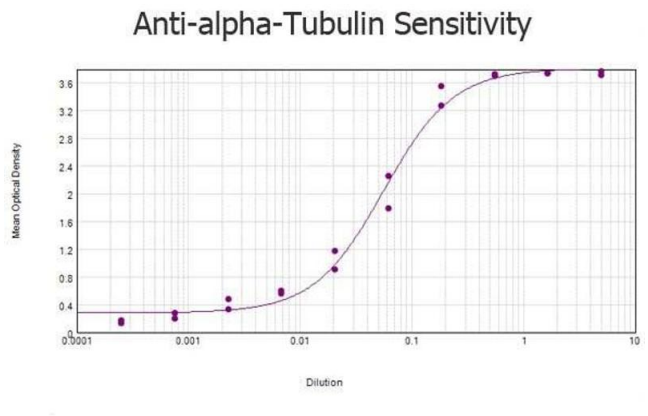
Western Blotting

Image 1. miR-155 and FOXP3 down regulate endogenous ZEB2 in human breast cancer cells resulting in altered levels of EMT markers Vimentin and E-cadherin(A) Relative abundance of ZEB2 and ZEB1 protein in WT, GFP or FOXP3 overexpressing BT549 cells transfected with miR-155 or miR-control. Relative abundance of protein was determined by quantitation of the abundance of ZEB2 or ZEB1 proteins normalised to reference protein α-Tubulin by western blot analysis. Quantitation of bands was carried out using Image J software. Mean + SD plotted. Student's t test ***P < 0.001. ZEB1 protein expression as above. n = 3 experiments. (B) ZEB2 and ZEB1 protein in WT, GFP or FOXP3 overexpressing BT549 cells transfected with miR-155 or miR-control by western blot. Representative western blot shown. (C) Relative abundance of Vimentin and E-cadherin protein in WT, GFP or FOXP3 overexpressing BT549 cells transfected with miR-155 or miR-control. Relative abundance of protein was determined by quantitating the abundance of E-cadherin or Vimentin proteins and normalising to reference protein β-Actin by western blot analysis. Quantitation of bands was carried out using Image J software. Mean + SD plotted. Student's t test ***P < 0.001, **P < 0.01. n = 3 experiments. (D) Vimentin and E-cadherin protein in WT, GFP or FOXP3 overexpressing BT549 cells transfected with miR-155 or miR-control analysed by western blot. Representative western blot shown. - figure provided by CiteAb. Source: PMID29963231



Immunofluorescence

Image 2. 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 488 Conjugated Preadsorbed 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.



ELISA

Image 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) and TMB ELISA Peroxidase Substrate .

Please check the product details page for more images. Overall 5 images are available for ABIN129653.