10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-ALPHA-TUBULIN (MOUSE) Monoclonal Antibody

Alpha-Tubulin Antibody
Catalog # ASR4163

Specification

Anti-ALPHA-TUBULIN (MOUSE) Monoclonal Antibody - Product Information

Host	**Mouse**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Monoclonal**
Application	**WB, IHC, E, I, LCI**
Application Note	**Anti-Tubulin Antibody has been tested for use in ELISA, immunohistochemistry, immunofluorescence microscopy 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.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Anti-Tubulin Loading Control Antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues near the C terminal end of human alpha tubulin protein.**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-ALPHA-TUBULIN (MOUSE) Monoclonal Antibody - Additional Information

Gene ID 10376

Purity
Anti-Tubulin Loading Control Antibody was purified by Protein A chromatography. This Loading Control antibody is directed against alpha tubulin. A BLAST analysis was used to suggest antibody reactivity 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.

Storage Condition
Store Anti-Tubulin Antibody at -20° C prior to opening. Aliquot Loading Control Antibody 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 Anti-Tubulin Loading Control Antibody is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-ALPHA-TUBULIN (MOUSE) Monoclonal Antibody - Protein Information

Name TUBA1B

Function
Tubulin is the major constituent of microtubules, a cylinder consisting of laterally associated linear protofilaments composed of alpha- and beta-tubulin heterodimers (PubMed:34996871). Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms (PubMed:34996871). Below the cap, tubulin dimers are in GDP-bound state, owing to GTPase activity of alpha- tubulin (PubMed:34996871).

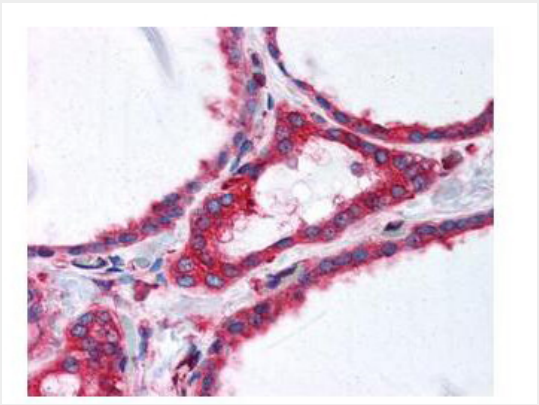
Cellular Location
Cytoplasm, cytoskeleton

Anti-ALPHA-TUBULIN (MOUSE) Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-ALPHA-TUBULIN (MOUSE) Monoclonal Antibody - Images



Rockland's anti-a-tubulin monoclonal antibody was used at a 2.5 µg/mL to detect tubulin in thyroid follicular epithelium (40X) showing moderate to strong cytoplasmic staining (image). Moderate to strong cytoplasmic staining was also observed within subsets of neurons and glia, and epithelial cells including adrenal, breast, colon, pancreas, kidney, prostate, placenta, skin, testis, uterus, thyroid, and within lymphoid organs. The image shows the localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain. Tissue

was formalin-fixed and paraffin embedded. Personal Communication, Vasiliki Demas, LifeSpan Biosciences, Seattle, WA.

Anti-ALPHA-TUBULIN (MOUSE) Monoclonal Antibody - Background

Microtubules 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.