

Alpha-tubulin Antibody
Catalog # ASC11733**Specification**

Alpha-tubulin Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	Q13748
Other Accession	NP_005992 , 17921993
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 50 kDa

Application Notes	Observed: 45 kDa KDa Alpha-tubulin antibody can be used for detection of alpha-tubulin by Western blot at 0.25 - 0.5 µg/ml. Antibody can also be used for Immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.
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Alpha-tubulin Antibody - Additional InformationGene ID **7278****Target/Specificity**

TUBA3C; Alpha-tubulin antibody is human, mouse and rat reactive.

Reconstitution & Storage

Alpha-tubulin antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

Alpha-tubulin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

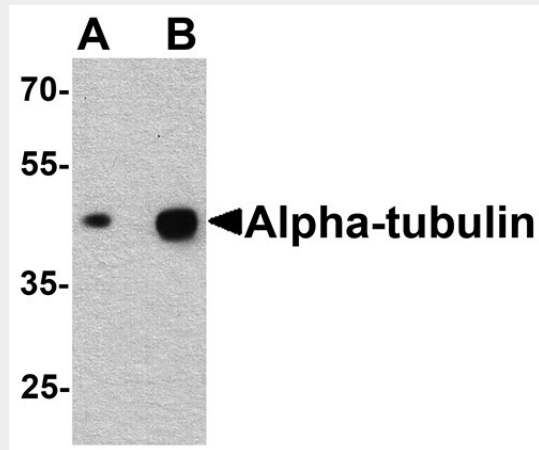
Alpha-tubulin Antibody - Protein Information**Alpha-tubulin Antibody - Protocols**

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

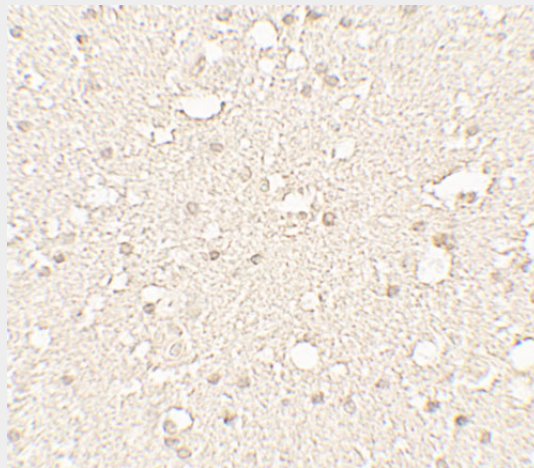
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

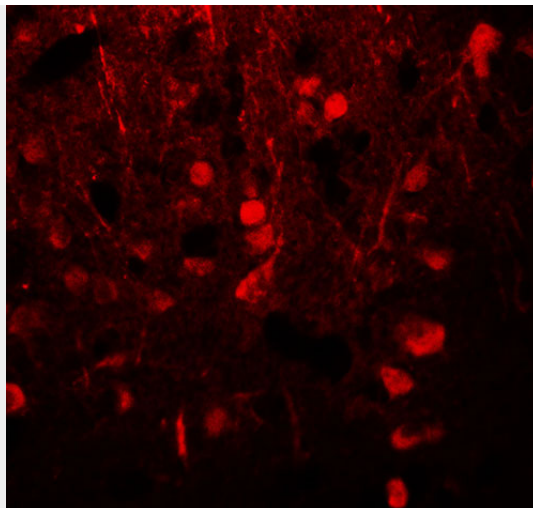
Alpha-tubulin Antibody - Images



Western blot analysis of alpha-tubulin in human brain tissue lysate with alpha-tubulin antibody at (A) 0.25 and (B) 0.5 µg/ml.



Immunohistochemistry of Alpha-tubulin in human brain tissue with Alpha-tubulin antibody at 5 µg/mL.



Immunofluorescence of Alpha-tubulin in human brain tissue with Alpha-tubulin antibody at 20 $\mu\text{g/mL}$.

Alpha-tubulin Antibody - Background

Alpha-tubulin belongs to the tubulin superfamily, which is composed of six distinct families. Along with beta-tubulins, alpha-tubulins are the major components of microtubules. These 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. Alpha- and beta-tubulin dimers are assembled to 13 protofilaments that form a microtubule of 22-nm diameter (reviewed in 1). Tyrosine ligase adds a C-terminal tyrosine to monomeric alpha-tubulin. Assembled microtubules can again be detyrosinated by a cytoskeleton-associated carboxypeptidase (2). Another post-translational modification of detyrosinated alpha-tubulin is C-terminal polyglutamylation, which is characteristic of microtubules in neuronal cells and the mitotic spindle (3). Like GAPDH and β -Actin, this antibody makes an excellent loading control in immunoblots.

Alpha-tubulin Antibody - References

McKean PG, Vaughan S, and Gull K. The extended tubulin family. *J. Cell Sci.* 2001; 114:2723-33.
Barra HA, Arce CA, and Argarana CE. Posttranslational tyrosination/detyrosination of tubulin. *Mol. Neurobiol.* 1988; 2:133-53.
Fukshima N, Furuta D, Hidaka Y, et al. Post-translational modifications of tubulin in the nervous system. *J. Neurochem.* 2009; 109:683-693.