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

Alpha-tubulin Antibody

Catalog # ASC11733

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q13748
Other Accession	NP_005992, 17921993
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	50 KDa
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Alpha-tubulin antibody can be used for detection of alpha-tubulin by Western blot at 0.25 - 0.5 g/ml. Antibody can also be used for Immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	7278
Other Names	Tubulin alpha-3C/D chain, Alpha-tubulin 2, Alpha-tubulin 3C/D, Tubulin alpha-2 chain, TUBA3C, TUBA2
Target/Specificity	TUBA3C; Alpha-tubulin antibody is human, mouse and rat reactive.
Reconstitution & Storage	Alpha-tubulin antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	Alpha-tubulin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

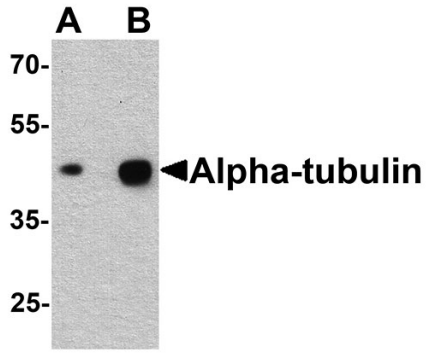
Background

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 ?-Actin, this antibody makes an excellent loading control in immunoblots.

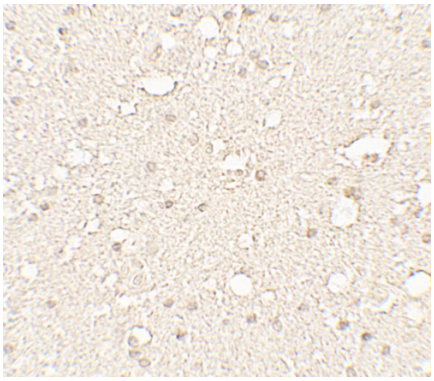
References

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 modifcations of tubulin in the nervous system. J. Neurochem. 2009; 109:683-693.

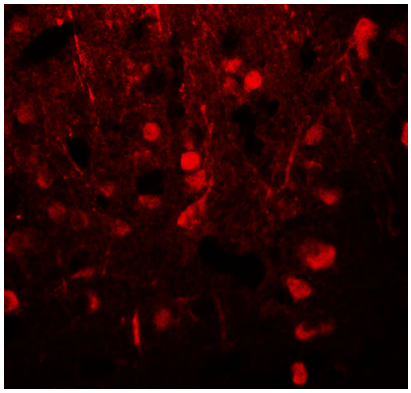
Images



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 µg/mL.