

α-Tubulin Antibody

✓ 100 µl
(10 western blots)

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Web ■ www.cellsignal.com

rev. 1/15/10

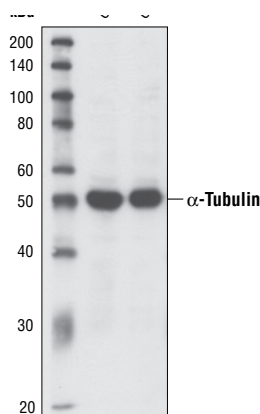
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IHC-P, IF-IC, F Endogenous	H, M, R, Mk, B, Dr	52 kDa	Rabbit**

Background: The cytoskeleton consists of three types of cytosolic fibers: microtubules, microfilaments (actin filaments), and intermediate filaments. Globular tubulin subunits comprise the microtubule building block, with α/β-tubulin heterodimers forming the tubulin subunit common to all eukaryotic cells. γ-tubulin is necessary to nucleate polymerization of tubulin subunits to form microtubule polymers. Many cell movements are mediated by microtubule action, including the beating of cilia and flagella, cytoplasmic transport of membrane vesicles, chromosome alignment during meiosis/mitosis, and nerve-cell axon migration. These movements result from competitive microtubule polymerization and depolymerization or through the actions of microtubule motor proteins (1).

Specificity/Sensitivity: The α-Tubulin Antibody detects endogenous levels of total α-tubulin protein, and does not cross-react with recombinant β-tubulin.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide (KLH-coupled) corresponding to the sequence of human α-tubulin. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from CAD and C6 cells, using α-Tubulin Antibody.

Entrez-Gene ID # 10376
Swiss-Prot Acc. # P68363

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by Western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

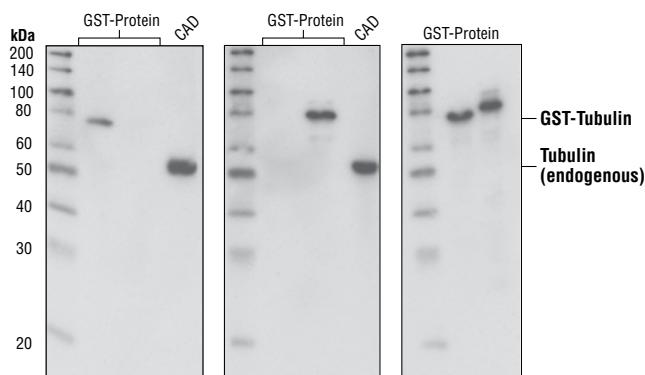
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:50
IHC protocol: Unmasking buffer/Antibody diluent Citrate/TBST-5%NGS	
Immunofluorescence (IF-IC)	1:50
Flow Cytometry	1:25

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

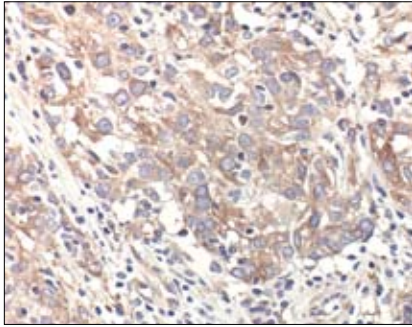
(1) Westermann, S. and Weber, K. (2003) *Nat. Rev. Mol. Cell Biol.* 4, 938 -947.



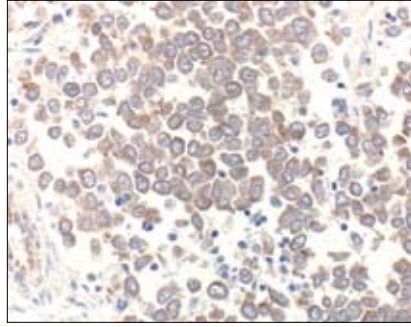
Western blot analysis of recombinant α-tubulin and β-tubulin GST-fusion proteins, and extracts from CAD cells, using α-Tubulin Antibody (left), β-Tubulin Antibody #2146 (middle) and GST Antibody #2622 (right).

IMPORTANT: For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

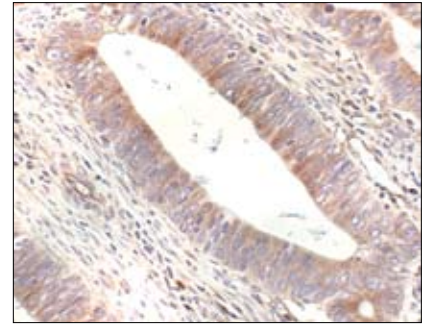
Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



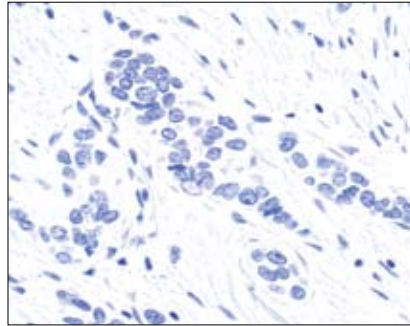
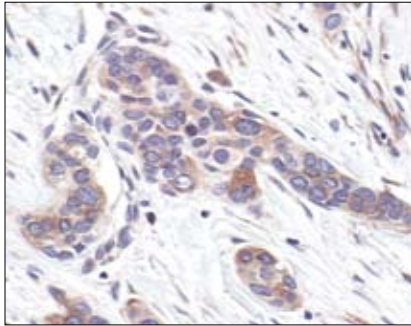
Immunohistochemical analysis of paraffin-embedded human breast carcinoma, showing cytoplasmic localization using α -Tubulin Antibody.



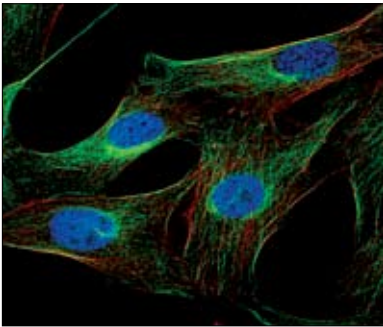
Immunohistochemical analysis of paraffin-embedded human Non-Hodgkin's lymphoma, using α -Tubulin Antibody.



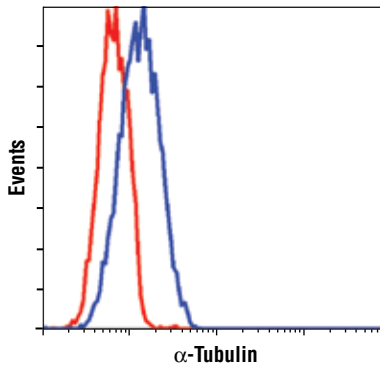
Immunohistochemical analysis of paraffin-embedded human colon carcinoma, using α -Tubulin Antibody.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using α -Tubulin Antibody in the presence of control peptide (left) or antigen-specific peptide (right).



Confocal immunofluorescent analysis of NIH/3T3 cells, using α -Tubulin Antibody (green). Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red). Blue pseudocolor = DRAQ5™ (fluorescent DNA dye).



Flow cytometric analysis of C6 cells, using α -Tubulin Antibody (blue) compared to a nonspecific negative control antibody (red).