

# α-Tubulin (DM1A) Mouse mAb



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rev. 08/13/18

**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-IC, F Endogenous	H, M, R, Mk	52 kDa	Mouse IgG1**

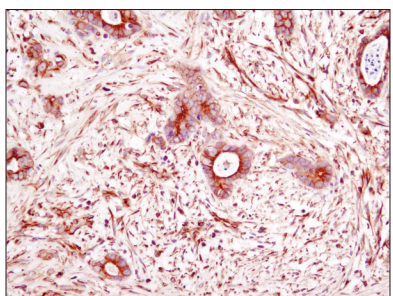
**Background:** The cytoskeleton consists of three types of cytosolic fibers: microtubules, microfilaments (actin filaments), and intermediate filaments. Globular tubulin subunits comprise the microtubule building block, with α/β-tubulin heterodimers forming the tubulin subunit common to all eukaryotic cells. γ-tubulin is required 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:** α-Tubulin (DM1A) Mouse mAb detects endogenous levels of total α-tubulin protein.

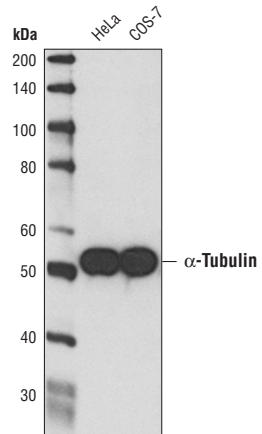
**Source/Purification:** Monoclonal antibody is produced by immunizing animals with full-length chicken α-tubulin purified from brain extracts, and recognizes residues surrounding Val440 of α-tubulin protein.

**Background References:**

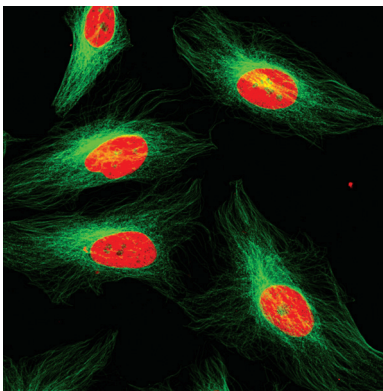
- (1) Westermann, S. and Weber, K. (2003) *Nat. Rev. Mol. Cell Biol.* 4, 938 -947.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma using α-Tubulin (DM1A) Mouse mAb.



Western blot analysis of extracts from HeLa and COS-7 cells using α-Tubulin (DM1A) Mouse mAb.



Confocal immunofluorescent analysis of HeLa cells using α-Tubulin (DM1A) Mouse mAb (green). Red = Propidium iodide (fluorescent DNA dye).

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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

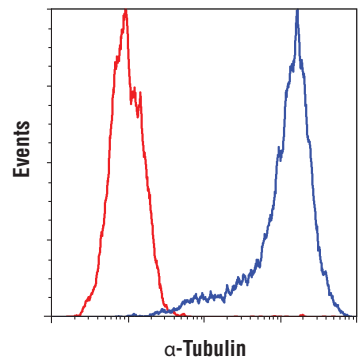
\*\*Anti-mouse secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:100†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Mouse) #8125
†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.	
Immunofluorescence (IF-IC)	1:2000
Flow Cytometry	1:400

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.



Flow cytometric analysis of HeLa cells using α-Tubulin (DM1A) Mouse mAb (blue) compared to Mouse (G3A1) mAb IgG1 Isotype Control #5415 (red). Anti-mouse IgG (H+L), F(ab)<sup>2</sup> fragment (Alexa Fluor 488 conjugate) #4408 was used as a secondary antibody.

Alexa Fluor® is a registered trademark of Molecular Probes, Inc.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 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.