#12152 Store at -20°C

Acetyl-α-Tubulin (Lys40) (6-11B-1) Mouse mAb

☑ 100 µl
(10 western blots)

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

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, R, (M)	52 kDa	Mouse IgG2b**

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).

The Elongator complex catalytic subunit (Elp3) acetylates α-tubulin at Lys40, while the histone deacetylase HDAC6 functions as a tubulin deacetylase. This post-translational modification may be required for dynamic cell shape remodeling, cell motility, tubulin stability, and terminal branching of cortical neurons (2,3).

Specificity/Sensitivity: Acetyl-α-Tubulin (Lys40) (6-11B-1) Mouse mAb recognizes endogenous levels of α-tubulin protein only when acetylated at Lys40.

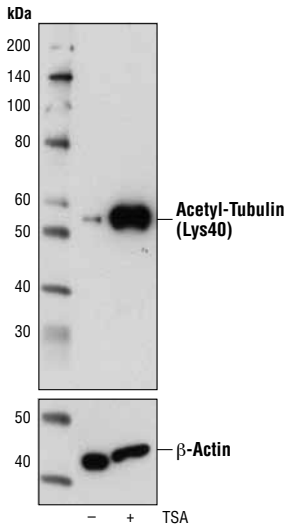
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic acetylpeptide corresponding to residues surrounding Lys40 of human α-tubulin protein.

Background References:

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

(2) Creppe, C. et al. (2009) *Cell* 136, 551-64.

(3) Hubbert, C. et al. (2002) *Nature* 417, 455-8.



Western blot analysis of extracts from HeLa cells, untreated (-) or treated with TSA #9950 (400 nM, 16 hr; +), using Acetyl-α-Tubulin (Lys40) (6-11B-1) Mouse mAb (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower).

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
Immunoprecipitation	1:50

For product 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 complementary products.

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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.