β3-Tubulin (TU-20) Mouse mAb

#4466 Store at -20°C

☑ 100 µl
(10 western blots)

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Entrez-Gene ID #10381
Swiss-Prot Acc. #Q13509

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-F Endogenous	H, M, R	55 kDa	Mouse IgG1**

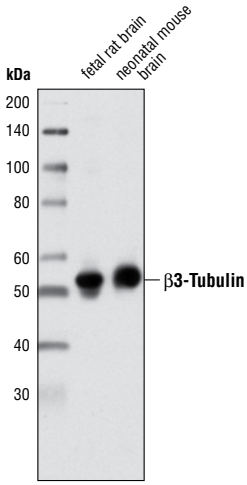
Background: The cytoskeleton consists of three types of cytosolic fibers: microtubules, microfilaments (actin filaments), and intermediate filaments. Globular tubulin subunits comprise the microtubule building block, with α/β-tubulin heterodimers forming the tubulin subunit common to all eukaryotic cells. γ-tubulin is 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: β3-Tubulin (TU-20) Mouse mAb detects endogenous levels of total β3-tubulin protein and does not cross-react with tubulin isoforms expressed in non-neuronal cells. This clone is similar to TUJ1.

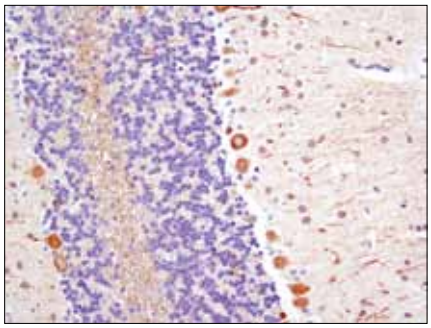
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide (KLH-coupled) corresponding to the carboxy terminus of human β3-tubulin protein.

Background References:

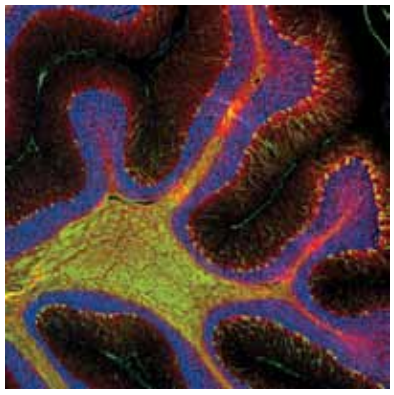
(1) Westermann, S. and Weber, K. (2003) *Nat. Rev. Mol. Cell Biol.* 4, 938 -947.



Western blot analysis of extracts from fetal rat and neonatal mouse brain using β3-Tubulin (TU-20) Mouse mAb.



Immunohistochemical analysis of paraffin-embedded rat brain using β3-Tubulin (TU-20) Mouse mAb.



Confocal immunofluorescent image of rat cerebellum labeled with β3-Tubulin (TU-20) Mouse mAb (green) and Neurofilament-L (C28E10) Rabbit mAb #2837 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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.

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)	1:50†
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-F)	1:200

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.

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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.