

# $\beta$ -Tubulin (9F3) Rabbit mAb (Alexa Fluor® 488 Conjugate)



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

| Applications           | Species Cross-Reactivity* | Isotype    |
|------------------------|---------------------------|------------|
| F, IF-IC<br>Endogenous | H, M, R, Mk, B, Z, (C)    | Rabbit IgG |

**Description:** This Cell Signaling Technology (CST) antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometry in human cells. The unconjugated  $\beta$ -Tubulin (9F3) Rabbit mAb #2128 reacts with human, mouse, rat, monkey and bovine  $\beta$ -tubulin. CST expects that  $\beta$ -Tubulin (9F3) Rabbit mAb (Alexa Fluor® 488 Conjugate) will also recognize  $\beta$ -tubulin in these species.

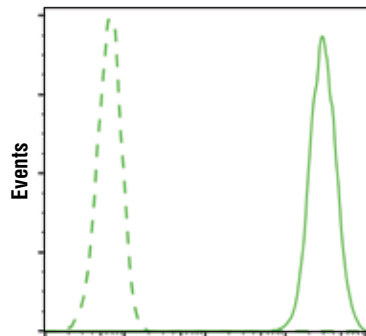
**Background:** The cytoskeleton consists of three types of cytosolic fibers: microtubules, microfilaments (actin filaments), and intermediate filaments. Globular tubulin subunits comprise the microtubule building block, with  $\alpha$ / $\beta$ -tubulin heterodimers forming the tubulin subunit common to all eukaryotic cells.  $\gamma$ -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:**  $\beta$ -Tubulin (9F3) Rabbit mAb (Alexa Fluor® 488 Conjugate) detects endogenous levels of total  $\beta$ -tubulin protein and does not cross-react with recombinant  $\alpha$ -tubulin.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to the amino terminus of human  $\beta$ -tubulin.

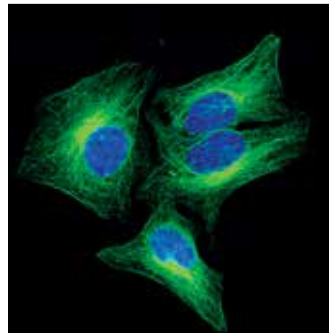
#### Background References:

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



$\beta$ -Tubulin (Alexa Fluor® 488 Conjugate)

Flow cytometric analysis of Jurkat cells using  $\beta$ -Tubulin (9F3) Rabbit mAb (Alexa Fluor® 488 Conjugate) (solid line) compared to concentration-matched Rabbit (DA1E) mAb IgG XP® Isotype Control (Alexa Fluor® 488 Conjugate) #2975 (dashed line).



Confocal immunofluorescent analysis of HeLa cells using  $\beta$ -Tubulin (9F3) Rabbit mAb (Alexa Fluor® 488 Conjugate) (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Entrez-Gene ID #203068  
UniProt ID #P07437

**Storage:** Supplied in PBS (pH 7.2), less than 0.1% sodium azide, 2mg/ml BSA. Store at 4°C. Protect from light. *Do not freeze.*

**\*Species cross-reactivity other than human is determined by western blot using the unconjugated antibody.**

#### Recommended Antibody Dilutions:

|                            |       |
|----------------------------|-------|
| Flow Cytometry             | 1:50  |
| Immunofluorescence (IF-IC) | 1:100 |

**For product specific protocols and a complete listing of recommended companion products please see the product web page at [www.cellsignal.com](http://www.cellsignal.com)**

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