

Beta-Tubulin Antibody (Monoclonal)

Catalog Number:	1007-M1-TUB
Product Specification:	Human Beta-tubulin Antibody raised in mouse
Size:	100 μ l
Type:	Monoclonal
Specificity:	Detects endogenous levels of total beta-tubulin protein.
Host Species:	Mouse
Species Cross-reactivity:	Human, Rat, Mouse and Monkey. Other Species not tested.
Immunogen:	Internal fragment within C-terminus of human beta-tubulin
Isotype:	IgG1
Clone Number:	10B1
Western Blot:	1: 5000
Immuno-fluorescence:	1: 1000
Immuno-precipitation:	Not tested
ELISA:	Not tested
Storage:	-20°C in aliquots. Freeze-thaw cycles must be avoided once the stock aliquot is diluted.
Form:	Liquid
Secondary Antibody (Recommended):	Use anti-mouse IgG raised in rabbit, goat or donkey

Product Background:

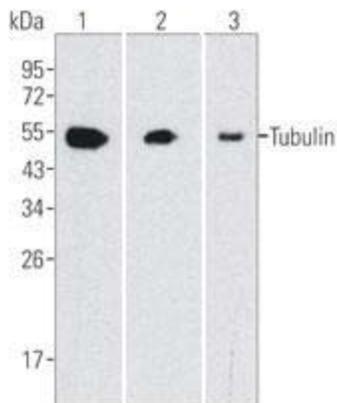
Tubulin is a major cytoskeleton component that has five distinct forms, designated α , β , γ , δ , and ϵ -Tubulin. Tubulins form heterodimers which multimerize to form a microtubule filament. There are five β -Tubulin isoforms (β -1, β -2, β -3, β -4A and β -4B) that are expressed in mammalian tissues. β -1 and β -4 are present throughout the cytosol, β -2 is present in the nuclei and nucleoplasm, and β -3 is a neuron-specific cytoskeletal protein. γ -Tubulin forms the gamma-some, which is required for nucleating microtubule filaments at the centrosome. Both δ -Tubulin and ϵ -Tubulin are associated with the centrosome. δ -Tubulin is a homolog of the Chlamydomonas δ -Tubulin Uni3 and is found in

association with the centrioles, whereas ϵ -Tubulin localizes to the pericentriolar material. ϵ -Tubulin exhibits a cell cycle-specific pattern of localization; first associating with only the older of the centrosomes in a newly duplicated pair, and later associating with both centrosomes.

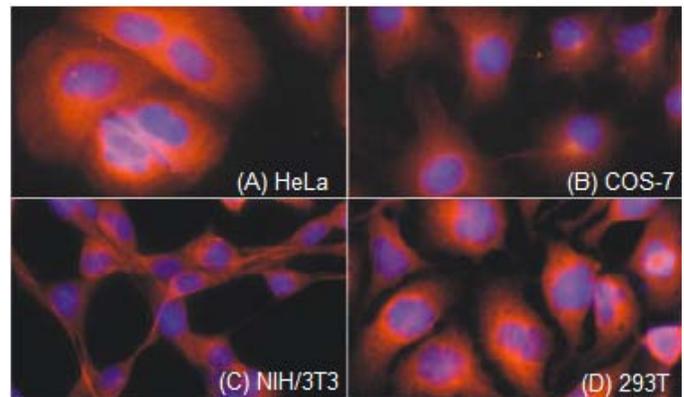
References:

1. Weisenberg, R. 1981. Invited review: the role of nucleotide triphosphate in Actin and Tubulin assembly and function. *Cell Motil.* 1: 485-497.
2. Hoffman, P.N. 1988. Distinct roles of neurofilament and Tubulin gene expression in axonal growth. *Ciba Found. Symp.* 138: 192-204.
3. Zheng, Y., Jung, M.K. and Oakley, B.R. 1991. Tubulin is present in *Drosophila melanogaster* and *Homo sapiens* and is associated with the centrosome. *Cell* 65: 817-823.

Applications:



WB analysis of HeLa cell lysate using Alamo Labs' Mouse mAb (**Cat # 1007-M1-TUB**) at 1:2000 dilution (Blot 1), 1:5,000 dilution (Blot 2), and 1:10,000 (Blot-3). Each lane was loaded with 10 μ g of cell lysate.



Immunofluorescence (IF) Analysis of HeLa cells (A), COS-7 cells (B), NIH/3T3 cells (C), and 293T cells (D) using beta-tubulin Mouse mAb (**Cat # 1007-M1-TUB**) at 1:1000 dilution.

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