Datasheet for ABIN94313

anti-TUBG1 antibody (C-Term)

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Overview

Quantity:	0.1 mg
Target:	TUBG1
Binding Specificity:	C-Term
Reactivity:	Human, Rat, Mouse, Cow, Chicken, Plant, Protozoa, Pig
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This TUBG1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunocytochemistry (ICC), Flow Cytometry (FACS)

Product Details

Immunogen:	C-terminal peptide of gamma-tubulin counjugated to KLH.
Clone:	TU-30
Isotype:	IgG1
Specificity:	The antibody TU-30 recognizes C-terminus (amino acids 434-449 in human) of gamma-tubulin, a 48 kDa structural constituent of cytoskeleton and microtubule organizing center (MTOC). The epitope was located in the amino acid sequence TRPDYI (aa439-444 in human), which is present on human gamma-tubulin 1 but not on human gamma-tubulin 2.
Cross-Reactivity (Details):	Human, Porcine, Mouse, Rat, Bovine, Chicken, Protozoa, Plants
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

Target Details

Target:	TUBG1
Alternative Name:	gamma-tubulin 1 (TUBG1 Products)
Background:	Tubulin gamma 1,The gamma-tubulin (TUBG1, relative molecular weight about 48 kDa) is a minor member of tubulin family (less that 0.01 % of tubulin dimer). The gamma-tubulin ring structures, however, serve to provide structural primer for initiation of microtubular nucleation and growth, thereby being crutial for microtubule-based cellular processes, above all for mitotic spindle formation. In animal cells, a center of microtubule organization is the centrosome composed of a pair of cylindrical centrioles surrounded by fibrous pericentriolar material containing gamma-tubulin. Formation of the mitotic spindle is preceded by duplication of centrosome during S phase. Before mitosis, both centrosomes increase their microtubule nucleation capacity and form two microtuble asters that are pushed apart from each other by the forces of motor proteins associated at the microtubule surface. Humans possess two gamma-tubulin genes. Gamma-tubulin 1 represents a ubiquitous isotype, whereas gamma-tubulin 2 is found predominantly in the brain, where it may be endowed with divergent functions beyond microtubule nucleation.,TUBG
Gene ID:	7283
UniProt:	P23258
Pathways:	Microtubule Dynamics, M Phase

Application Details

Application Notes:	Immunocytochemistry: Recommended dilution: 1-2 µg/mL. Staining technique: (a) Fix cells for 10 min in methanol at -20 °C and for 6 min in acetone at -20 °C, (b) Fix cells directly in methanol for 10 min at -20 °C or in acetone for 10 min at -20 °C. Positive control: P-19 murine embryonal carcinoma cell line, 3T3 murine fibroblasts. The antibody TU-30 stains only fixed cells. Western blotting: Recommended dilution 1-2 µg/mL, reducing conditions.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

	should be handled by trained staff only.
Handling Advice:	**Do not freeze.**
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

Product cited in:

Vulprecht, David, Tibelius, Castiel, Konotop, Liu, Bestvater, Raab, Zentgraf, Izraeli, Krämer: "STIL is required for centriole duplication in human cells." in: **Journal of cell science**, (2012) (PubMed).

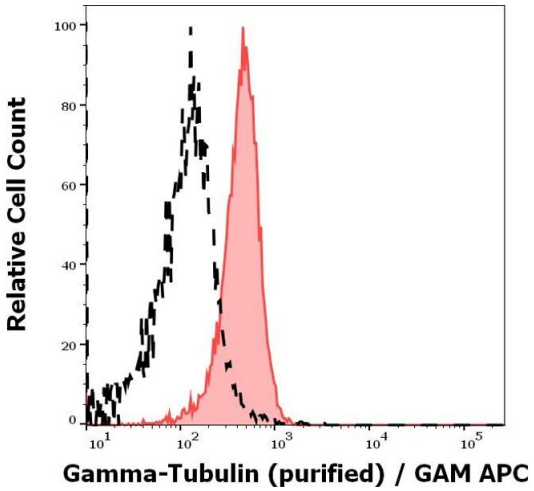
Löffler, Fechter, Matuszewska, Saffrich, Mistrik, Marhold, Hornung, Westermann, Bartek, Krämer : "Cep63 recruits Cdk1 to the centrosome: implications for regulation of mitotic entry, centrosome amplification, and genome maintenance." in: **Cancer research**, Vol. 71, Issue 6, pp. 2129-39, (2011) (PubMed).

Koledova, Kafkova, Kraemer, Divoky: "DNA damage-induced degradation of Cdc25A does not lead to inhibition of Cdk2 activity in mouse embryonic stem cells." in: **Stem cells (Dayton, Ohio)**, Vol. 28, Issue 3, pp. 450-61, (2010) (PubMed).

Katsetos, Reddy, Dráberová, Smejkalová, Del Valle, Ashraf, Tadevosyan, Yelin, Maraziotis, Mishra, Mörk, Legido, Nissanov, Baas, de Chadarévian, Dráber: "Altered cellular distribution and subcellular sorting of gamma-tubulin in diffuse astrocytic gliomas and human glioblastoma cell lines." in: **Journal of neuropathology and experimental neurology**, Vol. 65, Issue 5, pp. 465-77, (2006) (PubMed).

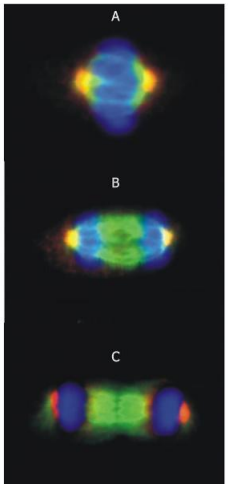
Sulimenko, Dráberová, Sulimenko, Macurek, Richterová, Dráber, Dráber: "Regulation of microtubule formation in activated mast cells by complexes of gamma-tubulin with Fyn and Syk kinases." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 176, Issue 12, pp. 7243-53, (2006) (PubMed).

There are more publications referencing this product on: Product page



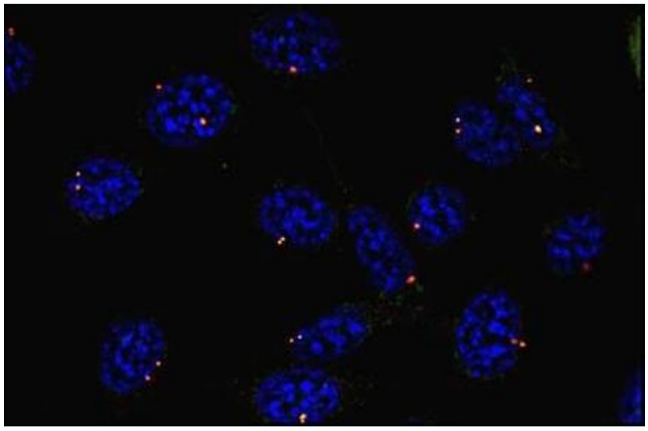
Flow Cytometry

Image 1. Separation of MCF-7 cells stained using anti-gamma-Tubulin (TU-30) purified antibody (concentration in sample 9 µg/mL, GAM APC, red-filled) from MCF-7 cells unstained by primary antibody (GAM APC, black-dashed) in flow cytometry analysis (intracellular staining).



Immunofluorescence

Image 2. Fig. A, B, C Immunofluorescence staining (mouse fibroblasts) Immunofluorescence staining of microtubular networks in 3T3 mouse fibroblasts. A – metaphase; B – anaphase; C - telophase Gamma-tubulin (red) stained with anti-gamma-tubulin (), alpha-tubulin (green) with polyclonal anti-alpha-tubulin antibody and nuclei with DAPI (blue).



Immunofluorescence

Image 3. Immunofluorescence staining (mouse fibroblasts) Immunofluorescence staining of mouse fibroblasts using anti-gamma-tubulin (; direct conjugate with Dyomics 547, red). Nuclei were stained with DAPI (blue).

Please check the product details page for more images. Overall 8 images are available for ABIN94313.