EXBIO Antibodies

PRODUCT DATA SHEET

A6-465-C025

Monoclonal Antibody to gamma-tubulin 1 Alexa Fluor® 647 conjugated (0.025 mg)

Clone:	TU-30
Isotype:	Mouse 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.
Regulatory Status:	RUO
Immunogen:	C-terminal peptide of gamma-tubulin counjugated to KLH.
Species Reactivity:	Human, Porcine, Mouse, Rat, Bovine, Chicken, Protozoa, Plants
Preparation:	The purified antibody is conjugated with Alexa Fluor® 647 under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	Immunocytochemistry on fixed and permeabilized cells.
Expiration:	See vial label
Lot Number:	See vial label
Background:	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.

For laboratory research only, not for drug, diagnostic or other use.

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz

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