Monoclonal Antibody to gamma-tubulin
Purified Antibody (0.1 mg)

Clone: TU-32
Isotype: Mouse IgG1
Specificity: The antibody TU-32 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 aminoacid sequence PDYISW (aa441-446 in human), which is identical for gamma-tubulin 1 and gamma-tubulin 2.

Regulatory Status: RUO
Immunogen: human gamma-tubulin peptide EYHAATRPDYISWGTQ, amino acids 434-449
Species Reactivity: Animals, Protozoa, Plants
Application: Western Blotting
Recommended dilution: 0.5 µg/ml
Application note: excellent
Immunocytochemistry
Application note: methanol/acetone fixation required

Purity: > 95% (by SDS-PAGE)
Purification: Purified by protein-A affinity chromatography
Concentration: 1 mg/ml
Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
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 crucial 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.
References:


