

Datasheet for ABIN302067

**anti-TUBG1 antibody (AA 434-449)****3** Images**11** Publications[Go to Product page](#)

## Overview

Quantity:	0.1 mg
Target:	TUBG1
Binding Specificity:	AA 434-449
Reactivity:	Plant, Protozoa
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This TUBG1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunocytochemistry (ICC)

## Product Details

Immunogen:	human gamma-tubulin peptide EYHAATRPDYISWGTQ, amino acids 434-449
Clone:	TU-32
Isotype:	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.
Cross-Reactivity (Details):	Animals, Protozoa, Plants
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

## Target Details

Target:	TUBG1
Alternative Name:	gamma-tubulin ( <a href="#">TUBG1 Products</a> )
Background:	<p>Tubulin gamma 1, The gamma-tubulin (TUBG1, relative molecular weight about 48 kDa) is a minor member of tubulin family (less than 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 microtubule 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</p>
Gene ID:	7283
UniProt:	<a href="#">P23258</a>
Pathways:	<a href="#">Microtubule Dynamics, M Phase</a>

## Application Details

Application Notes:	<p>Western blotting: Recommended dilution: 1-2 µg/mL, reducing conditions.</p> <p>Immunocytochemistry: Methanol/acetone fixation required.</p>
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 should be handled by trained staff only.
Handling Advice:	<b>Do not freeze.</b>

## Handling

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Storage: 4 °C

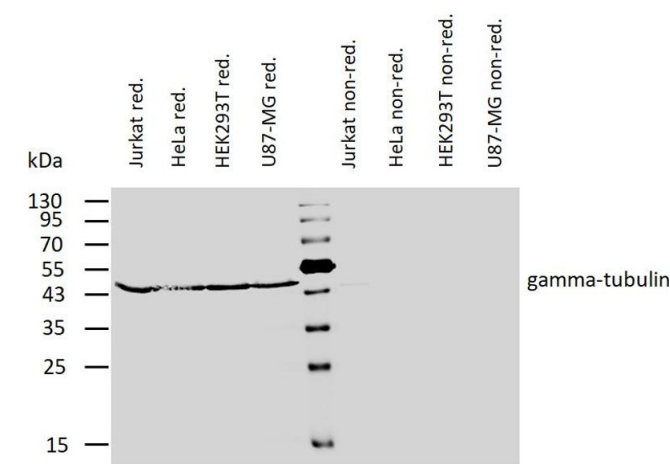
Storage Comment: Store at 2-8°C. Do not freeze.

## Publications

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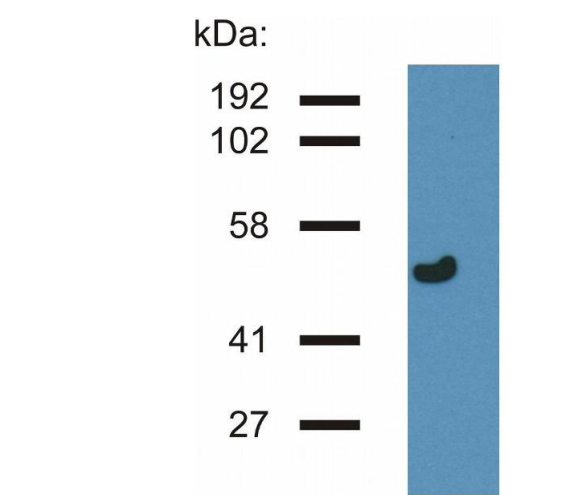
- Product cited in: Katsetos, Dráberová, Smejkalová, Reddy, Bertrand, de Chadarévian, Legido, Nissanov, Baas, Dráber: "Class III beta-tubulin and gamma-tubulin are co-expressed and form complexes in human glioblastoma cells." in: **Neurochemical research**, Vol. 32, Issue 8, pp. 1387-98, (2007) ([PubMed](#)).
- 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](#)).
- Libusová, Sulimenko, Sulimenko, Hozák, Dráber: "gamma-Tubulin in Leishmania: cell cycle-dependent changes in subcellular localization and heterogeneity of its isoforms." in: **Experimental cell research**, Vol. 295, Issue 2, pp. 375-86, (2004) ([PubMed](#)).
- Linhartová, Novotná, Sulimenko, Dráberová, Dráber: "Gamma-tubulin in chicken erythrocytes: changes in localization during cell differentiation and characterization of cytoplasmic complexes." in: **Developmental dynamics : an official publication of the American Association of Anatomists**, Vol. 223, Issue 2, pp. 229-40, (2002) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



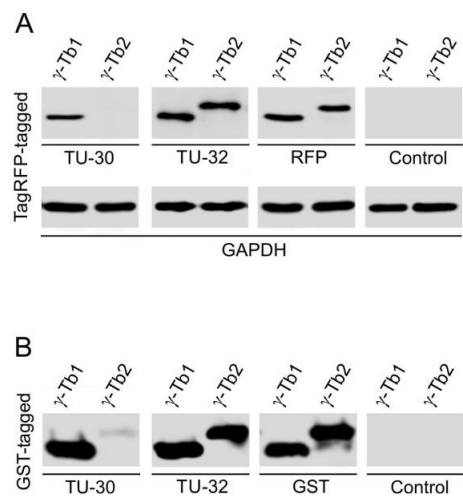
**Western Blotting**

**Image 1.** Western blotting analysis of human gamma-tubulin using mouse monoclonal antibody TU-32 on lysates of various cell lines under reducing and non-reducing conditions. Nitrocellulose membrane was probed with 2  $\mu$ g/mL of mouse anti-gamma-tubulin monoclonal antibody followed by IRDye800-conjugated anti-mouse secondary antibody. A specific band was detected for gamma-tubulin at approximately 46 kDa.



**Western Blotting**

**Image 2.** Western blotting analysis of gamma-Tubulin in porcine brain lysate by antibody TU-32 .



**Western Blotting**

**Image 3.** Western blotting analysis of differential reactivity of monoclonal antibodies to  $\gamma$ -tubulin with human  $\gamma$ -tubulin isotypes. (A) Immunoblots of total cell lysates from SH-SY5Y cells, expressing TagRFP-tagged human  $\gamma$ -tubulin 1 ( $\gamma$ -Tb1) or  $\gamma$ -tubulin 2 ( $\gamma$ -Tb2), probed with Abs to  $\gamma$ -tubulin (TU-30, TU-32), TagRFP (RFP) and GAPDH. In control samples, only secondary anti-mouse Ab was applied. (B) Immunoblots of immobilized GST-tagged human C-terminal regions (a.a. 362-451) of  $\gamma$ -Tb1 or  $\gamma$ -Tb2 probed with Abs to  $\gamma$ -tubulin (TU-30, TU-32) and GST. In control samples, only secondary anti-mouse Ab was applied.