10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Gamma-tubulin Antibody

Catalog # AP51592

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P23258
Reactivity	Human, Rat, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	51170

Additional Information

Gene ID	7283
Other Names	TUBG; Tubulin gamma-1 chain; Gamma-1-tubulin; Gamma-tubulin complex component 1; GCP-1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Gamma-tubulin. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

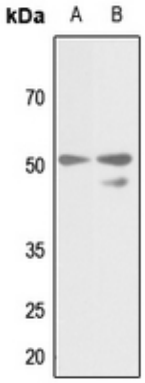
Name	TUBG1 (HGNC:12417)
Synonyms	TUBG
Function	Tubulin is the major constituent of microtubules, protein filaments consisting of alpha- and beta-tubulin heterodimers (PubMed:38305685, PubMed:38609661, PubMed:39321809). Gamma-tubulin is a key component of the gamma-tubulin ring complex (gTuRC) which mediates microtubule nucleation (PubMed:38305685, PubMed:38609661, PubMed:39321809). The gTuRC regulates the minus-end nucleation of alpha-beta tubulin heterodimers that grow into microtubule protafilaments, a critical step in centrosome duplication and spindle formation (PubMed:38305685, PubMed:38609661, PubMed:39321809). Plays a role in sperm morphological development during late stage spermiogenesis, particularly the anchoring of the sperm head to the tail (PubMed:38870534).
Cellular Location	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome.

Cytoplasm, cytoskeleton, spindle. Note=Localizes to mitotic spindle microtubules.

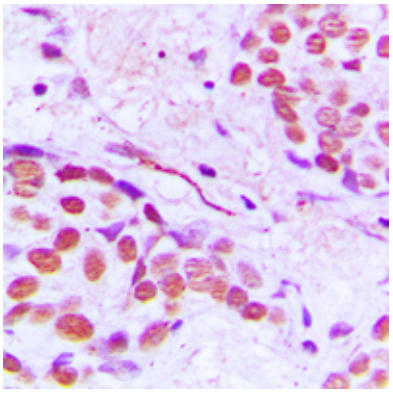
References

Zheng Y.,et al.Cell 65:817-823(1991).
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Ebert L.,et al.Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Harris R.A.,et al.Proteomics 2:212-223(2002).

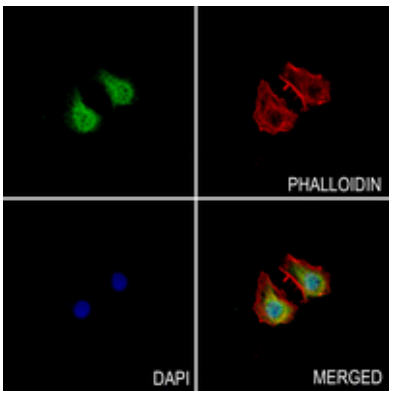
Images



Western blot analysis of Gamma-tubulin expression in HEK293T (A), rat testis (B) whole cell lysates. (Predicted band size: 51 kD; Observed band size: 51 kD)



Immunohistochemical analysis of Gamma-tubulin staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Gamma-tubulin staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).