abcam

ab205475

Alexa Fluor® 488 Anti-gamma Tubulin antibody [EPR16793] - Centrosome Marker

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR16793
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chicken, Hamster, Cow, Dog, Fish, Monkey, Xenopus tropicalis
Dilution info	-
Notes	-

Flow Cyt (Intra)

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chicken, Hamster, Cow, Dog, Fish, Monkey, Xenopus tropicalis
Dilution info	-
Notes	-

IHC-P

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.

Notes	-

Predicted

Species	Chicken, Hamster, Cow, Dog, Fish, Monkey, Xenopus tropicalis
Dilution info	-
Notes	-

Target data

See full target information TUBG1

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).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Gamma-tubulin an important component in the microtubule nucleation process is also known as Gtub or γ-tub. It weighs approximately 48 kDa. Gamma-tubulin is a significant protein inside the centrosome where it plays a role in the formation of microtubule organizing centers. Scientists often find and express it in abundance within rapidly dividing cells both in humans and other eukaryotes. Researchers employ gamma-tubulin staining techniques to visualize its location and understand its function within the centrosome.
Biological function summary	Gamma-tubulin is part of the gamma-tubulin ring complex also known as gamma-TuRC which anchors the microtubule minus ends influencing microtubule stability and organization. This complex functions as a nucleating template for microtubules which are critical for various cell processes including intracellular transport and chromosome separation during cell division. Gamma-tubulin plays an indispensable role in maintaining the correct function of the centrosome an important cellular organelle in cell cycle progression.
Pathways	Gamma-tubulin participates in processes involving cell cycle regulation and mitotic spindle formation. These processes depend heavily on microtubule dynamics and organization. Gamma-tubulin interacts closely with proteins like centrins and pericentrin within these pathways. Such interactions ensure accurate chromosomal segregation during mitosis highlighting its importance in cellular reproduction and stability.
Associated diseases and disorders	Abnormal gamma-tubulin expression and function relate to conditions like cancer and neurological disorders. Changes in gamma-tubulin levels can affect the

centrosome's function and microtubule dynamics leading to cell cycle dysregulation and tumorigenesis. Moreover it interacts with mutated tumor suppressor proteins like p53 further contributing to cancer progression. Scientists continue to study gamma-tubulin's role in these diseases providing insights into new therapeutic targets.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

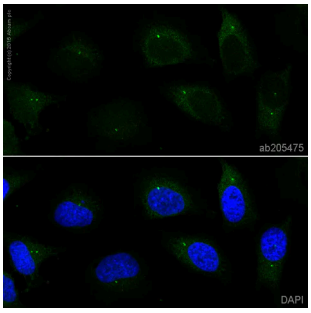
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
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1 product image



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-gamma Tubulin antibody [EPR16793] - Centrosome Marker (ab205475)

Gamma Tubulin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-gamma Tubulin antibody

ab205475 staining gamma Tubulin in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab205475 at a 1/500 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.