abcam

ab250240

Anti-gamma Tubulin antibody [EPR13872] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR13872
Purification technique	Affinity purification Protein A
Concentration	1.022 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	For antigen retrieval, heat up to 98 degree C, below boiling, and then let cool for 10-20 minutes.

Predicted

Species	Mouse, Rat, Cow, Dog
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat, Cow, Dog
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat, Cow, Dog
Dilution info	-
Notes	-

Target data

See full target information TUBG2

Function	Tubulin is the major constituent of microtubules, protein filaments consisting of alpha- and beta-tubulin heterodimers (PubMed:38305685). Gamma-tubulin is a key component of the gamma-tubulin ring complex (gTuRC) which mediates microtubule nucleation (PubMed:38305685). 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).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab250240 is the carrier-free version of ab180595.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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.

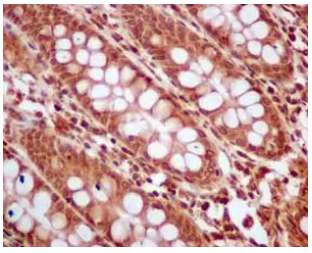
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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:
Terms & Conditions.

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3 product images

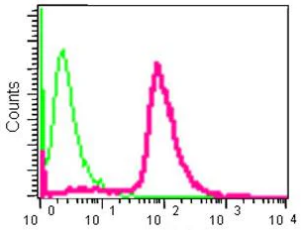


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-gamma Tubulin antibody [EPR13872] - BSA and Azide free (ab250240)

Gamma Tubulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-gamma Tubulin antibody

This data was developed using ab180595, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin embedded Human colon tissue labeling gamma Tubulin with ab180595 at a 1/100 dilution. Prediluted ImmunoHistoprobe HRP Polymer for Rabbit IgG secondary used. Counterstained with Hematoxylin.

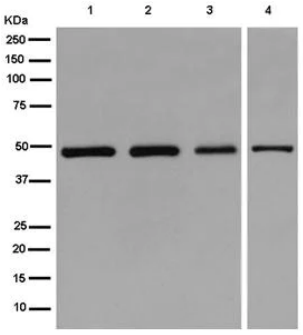
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-gamma Tubulin antibody [EPR13872] - BSA and Azide free (ab250240)

Gamma Tubulin Flow Cytometry (Intracellular) staining using rabbit Anti-gamma Tubulin antibody

This data was developed using ab180595, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of Jurkat cells using ab180595 at a 1/140 dilution (red) or a rabbit monoclonal IgG (negative) (green). Goat anti rabbit IgG (FITC) secondary used at a 1/150 dilution.



Western blot - Anti-gamma Tubulin antibody [EPR13872] - BSA and Azide free (ab250240)

Gamma Tubulin Western blot staining using rabbit Anti-gamma Tubulin antibody

This data was developed using ab180595, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-gamma Tubulin antibody [EPR13872] - Centrosome Marker (ab180595) at 1/2000 dilution

Lane 1:
HeLa cell lysate at 20 µg

Lane 2:
Jurkat cell lysate at 20 µg

Lane 3:
A431 cell lysate at 20 µg

Lane 4:
293 cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (H+L) Peroxidase conjugated at 1/1000 dilution

Predicted band size: 51 kDa

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