abcam

ab140225

Anti-TUBGCP2 antibody [GCP2-01]

Key facts

Isotype	IgG2b
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.1% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Mouse Tubgcp2 aa 1-200. The exact immunogen used to generate this antibody is proprietary information. Database link Q921G8
Clone number	GCP2-01
Purification technique	Affinity purification Protein A
Specificity	ab140225 recognizes TUBGCP2 and phosphorylated TUBGCP2.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	ab140225 is purified from cell culture supernatant by protein A affinity chromatography to a purity of > 95% (by SDS-PAGE).

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	0.1 µg for 10^6 Cells
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

WB

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	reducing conditions.

Target data

See full target information Tubgcp2

Function	Component of the gamma-tubulin ring complex (gTuRC) which mediates microtubule nucleation (By similarity). 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 (By similarity). Plays a role in neuronal migration (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Avoid freeze / thaw cycle, Store undiluted

Supplementary info

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

Activity summary	TUBGCP2 also known as Gamma-tubulin complex component 2 plays an important role in the nucleation of microtubules. It has a molecular mass of approximately 95 kDa. The protein is expressed in various tissues throughout the body with significant presence in cells undergoing division. TUBGCP2 belongs to the gamma-

	tubulin ring complex (γ-TuRC) which is essential for organizing microtubules at the centrosome.
Biological function summary	TUBGCP2 contributes to the formation and stability of the microtubule organizing center (MTOC). TUBGCP2 as part of the γ-TuRC interacts with other components like TUBGCP3 TUBGCP4 and TUBGCP5 creating a scaffold for microtubule attachment. This interaction facilitates the recruitment of tubulin and ensures accurate cell division which is necessary for proper chromosome segregation.
Pathways	TUBGCP2 plays an important role in the cell cycle and mitotic spindle formation. During the cell cycle TUBGCP2 together with proteins such as TUBGCP3 and spindle assembly checkpoint proteins ensures the correct alignment and separation of chromosomes. The protein also interacts with cell signaling pathways that control cell proliferation and division playing a role in maintaining genomic stability.
Associated diseases and disorders	TUBGCP2 is implicated in cancer and neurodegenerative disorders. Altered expression of TUBGCP2 can lead to improper cell division contributing to the development of various cancers. Moreover its interaction with centrosomal proteins like pericentrin links it to neurological conditions where cell division errors and instability are involved highlighting the importance of TUBGCP2 in both oncogenic processes and neuronal health.

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

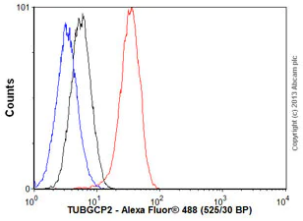
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - Anti-TUBGCP2 antibody [GCP2-01] (ab140225)

TUBGCP2 Flow Cytometry staining using mouse Anti-TUBGCP2 antibody

Overlay histogram showing HeLa cells stained with ab140225 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab140225, 0.1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (ab150113) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (ab91366, 1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

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