**Product name**: Anti-gamma Tubulin antibody - Centrosome Marker

**Description**: Rabbit polyclonal to gamma Tubulin - Centrosome Marker

**Host species**: Rabbit

**Specificity**: Does not react with alpha or beta tubulin. Immunogen sequence found in both gamma tubulin 1 and gamma tubulin 2.

**Tested applications**: Suitable for: ICC/IF, WB

**Species reactivity**: Reacts with: Mouse, Human, Zebrafish

**Predicted to work with**: Rat, Dog, Xenopus laevis

**Immunogen**: Synthetic peptide corresponding to Human gamma Tubulin aa 1-100 (internal sequence) conjugated to keyhole limpet haemocyanin.

(Peptide available as ab17097)

**Properties**

**Form**: Liquid

**Storage instructions**: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

**Storage buffer**: pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

**Purity**: Immunogen affinity purified

**Clonality**: Polyclonal

**Isotype**: IgG

**Applications**
Tubulin is the major constituent of microtubules. Gamma tubulin is found at microtubule organizing centers (MTOC) such as the spindle poles or the centrosome. Pericentriolar matrix component that regulates alpha/beta tubulin minus-end nucleation, centrosome duplication and spindle formation.

**Sequence similarities**
Belongs to the tubulin family.

**Post-translational modifications**
Phosphorylation at Ser-131 by BRSK1 regulates centrosome duplication, possibly by mediating relocation of gamma-tubulin and its associated proteins from the cytoplasm to the centrosome.

**Cellular localization**
Cytoplasm > cytoskeleton > centrosome.

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<th>Application</th>
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<tr>
<td>ICC/IF</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 5 µg/ml.</td>
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<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 48 kDa (predicted molecular weight: 48 kDa). Abcam recommends using milk as the blocking agent.</td>
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**Images**

ICC/IF image of ab16504 stained human HeLa cells. The cells were methanol fixed (5 min) and incubated with the antibody (ab16504, 5µg/ml) for 1h at room temperature. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Image-iT™FX Signal Enhancer was used as the primary blocking agent, 5% BSA (in TBS-T) was used for all other blocking steps. DAPI was used to stain the cell nuclei (blue). Alexa Fluor® 594 WGA was used to label plasma membranes (red).
**Western blot - Anti-gamma Tubulin antibody - Centrosome Marker (ab16504)**

**All lanes**: Anti-gamma Tubulin antibody - Centrosome Marker (ab16504) at 1 µg/ml

**Lane 1**: HeLa Whole Cell Lysate
**Lane 2**: HeLa Nuclear Cell Lysate
**Lane 3**: A431 Whole Cell Lysate
**Lane 4**: HeLa Whole Cell Lysate with Human gamma Tubulin peptide (ab17097) at 1 µg/ml
**Lane 5**: HeLa Nuclear Cell Lysate with Human gamma Tubulin peptide (ab17097) at 1 µg/ml
**Lane 6**: A431 Whole Cell Lysate with Human gamma Tubulin peptide (ab17097) at 1 µg/ml

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Alexa Fluor Goat polyclonal to Rabbit IgG at 1/10000 dilution

Performed under reducing conditions.

**Predicted band size**: 48 kDa

**Lane 1 - 6**: gamma Tubulin antibody - Centrosome Marker (ab11317) at 1 µg/ml

**Lane 1**: HeLa Whole Cell Lysate
**Lane 2**: HeLa Nuclear Cell Lysate
**Lane 3**: A431 Whole Cell Lysate
**Lane 4**: HeLa Whole Cell Lysate with gamma Tubulin peptide (38-53) (ab17097)
**Lane 5**: HeLa Nuclear Cell Lysate with gamma Tubulin peptide (38-53) (ab17097)
**Lane 6**: A431 Whole Cell Lysate with gamma Tubulin peptide (38-53) (ab17097)

**Secondary**

Alexa Fluor Goat polyclonal to Rabbit IgG at 1/10000 dilution
Lysates at 20 ug.
Blocking peptide at 1 ug/ml.
Performed under reducing conditions.

**Observed band size**: 48kD

SK-N-SH cells were fixed in 4% paraformaldehyde, permeabilized in 0.5% Triton X-100 and incubated for 1 hour with ab16504 (1/300). ab16504 staining is localized to the centrosome (red). The cells were counterstained with DAPI (blue). 100x magnification. The cells were blocked with 5% fetal bovine serum.

SK-N-SH cells were fixed in 4% paraformaldehyde, permeabilized in 0.5% Triton X-100 and incubated for 1 hour with ab16504. The antibody clearly labels the centrosome (red). The cells were counterstained with DAPI (blue). The cells were blocked in 5% BSA.

ICC/F image of ab16504 stained Hek293 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab16504, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

The cause of the background staining is uncertain, although a cytokeratin exists of a similar molecular weight and amino acid sequence to that of the immunogen used to raise the antibody.
All lanes: Anti-gamma Tubulin antibody - Centrosome Marker (ab16504) at 1 µg/ml

Lane 1: Molecular Marker
Lane 2: Zebrafish brain homogenate at 20 µg
Lane 3: Zebrafish liver homogenate at 20 µg
Lane 4: HeLa (Human epithelial carcinoma cell line) whole cell lysate at 20 µg

Secondary
Lane 1: Goat polyclonal to Rabbit IgG – H&L – Pre-Adsorbed (HRP) at 1/6000 dilution
Lanes 2-4: Goat polyclonal to Rabbit IgG – H&L – Pre-Adsorbed (HRP) at 1/6000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 48 kDa
Observed band size: 48 kDa

Exposure time: 5 minutes

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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