

Product datasheet

Anti-gamma Tubulin antibody - Centrosome Marker ab16504

★★★★★ 9 Abreviews 21 References 8 Images

Overview

| | |
|----------------------------|--|
| 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, IP, IHC - Wholemount, IHC-Fr, WB |
| Species reactivity | Reacts with: Mouse, Human, Zebrafish Predicted to work with: Rat, Dog, Xenopus laevis  |
| Immunogen | Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Human gamma Tubulin. Read Abcam's proprietary immunogen policy (Peptide available as ab17097 .) |
| Positive control | WB: Recombinant Human gamma Tubulin protein (denatured) (ab115710), HeLa Whole Cell Lysate, HeLa Nuclear Cell Lysate, A431 Whole Cell Lysate ICC: SK-N-SH cells |

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 | Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4 |
| Purity | Immunogen affinity purified |
| Clonality | Polyclonal |
| Isotype | IgG |

Applications

Our [Abpromise guarantee](#) covers the use of **ab16504** in the following tested applications.

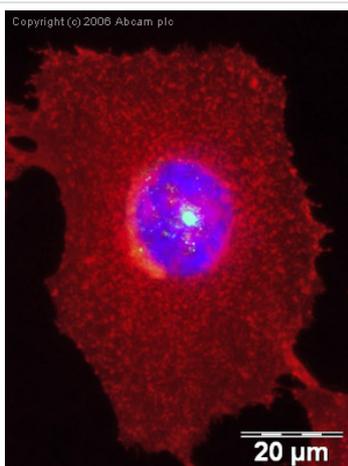
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|--------------------|-----------|--|
| ICC/IF | ★★★★☆ | Use a concentration of 5 µg/ml. |
| IP | ★★★★☆ | Use at an assay dependent concentration. |
| IHC - Wholmount | ★★★★☆ | Use at an assay dependent concentration. |
| IHC-Fr | ★★★★☆ | Use a concentration of 5 µg/ml. |
| WB | ★★★★★ | 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. |

Target

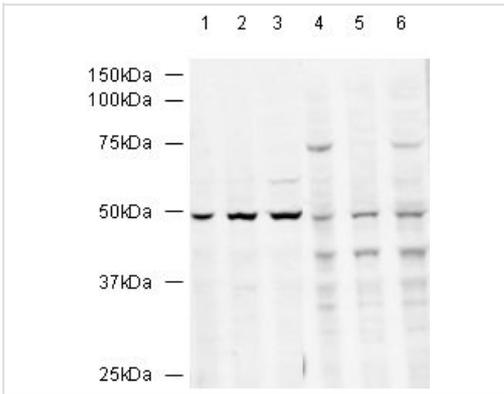
| | |
|---|--|
| Function | Tubulin is the major constituent of microtubules. Gamma tubulin is found at microtubule organizing centers (MTOC) such as the spindle poles or the centrosome. Pericentriolar matrix component that regulates alpha/beta tubulin minus-end nucleation, centrosome duplication and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

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).

Immunocytochemistry/ Immunofluorescence - Anti-gamma Tubulin antibody - Centrosome Marker (ab16504)



Western blot - Anti-gamma Tubulin antibody - Centrosome Marker (ab16504)

Lane 1 - 6 : gamma Tubulin antibody - Centrosome Marker (ab11317) at 1 ug/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

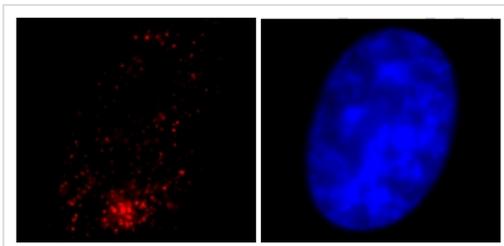
Alexa Fluor Goat polyclonal to Rabbit IgG at 1/10000 dilution

Lysates at 20 ug.

Blocking peptide at 1 ug/ml.

Performed under reducing conditions.

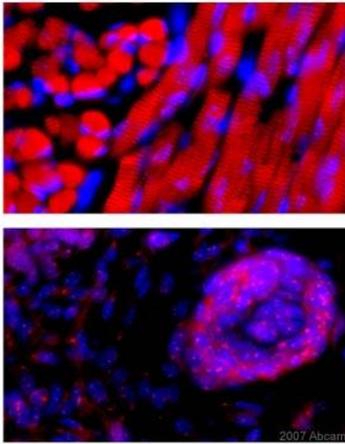
Observed band size : 48kD



Immunocytochemistry/ Immunofluorescence - Anti-gamma Tubulin antibody - Centrosome Marker (ab16504)

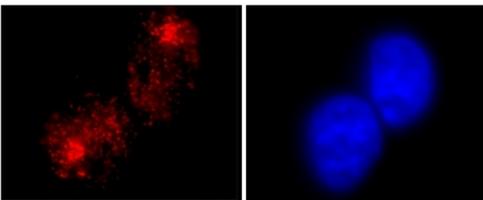
This image is courtesy of Darin McDonald, Cross Cancer Institute

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.



Paraformaldehyde-fixed mouse embryo tissue stained for gamma Tubulin (red) using ab16504 in immunohistochemical analysis.

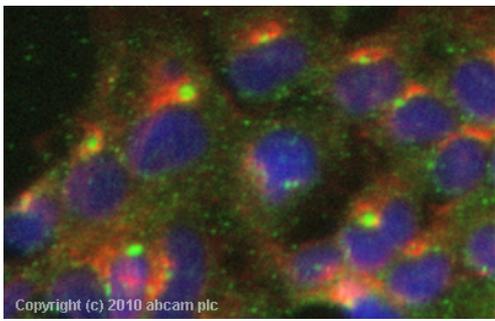
Immunohistochemistry (Frozen sections) - Anti-gamma Tubulin antibody - Centrosome Marker (ab16504)



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.

Immunocytochemistry/ Immunofluorescence - Anti-gamma Tubulin antibody - Centrosome Marker (ab16504)

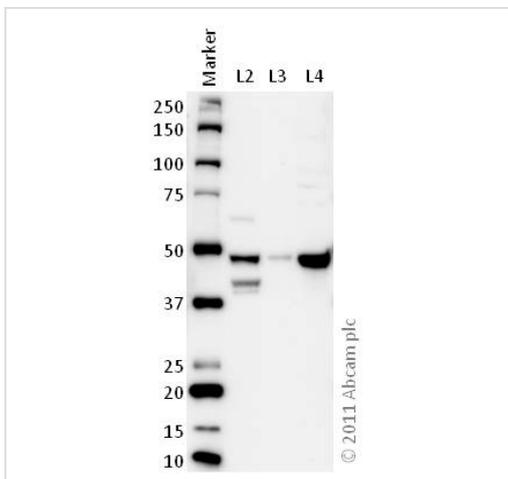
This image is courtesy of Darin McDonald, Cross Cancer Institute



Immunocytochemistry/ Immunofluorescence - Anti-gamma Tubulin antibody - Centrosome Marker (ab16504)

ICC/IF 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.



Western blot - Anti-gamma Tubulin antibody - Centrosome Marker (ab16504)

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

Lane 1 : 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

All lanes : Goat polyclonal to Rabbit IgG – H&L – Pre-Adsorbed (HRP) at 1/6000 dilution

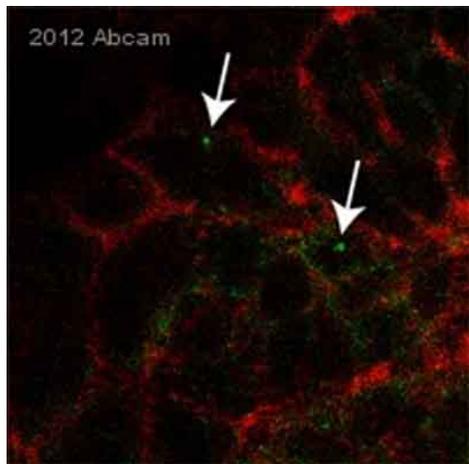
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 48 kDa

Observed band size: 48 kDa

Exposure time: 5 minutes



IHC - Wholemout - Anti-gamma Tubulin antibody -
Centrosome Marker (ab16504)

Image courtesy of Patricia Ybot by Abreview.

ab16504 staining gamma Tubulin in E8 murine embryos by IHC - Wholemout.

Samples were incubated with ab16504 at a 1/150 dilution for 12 hours at 4°C in 0.1% Triton/PBS. [ab6717](#) Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (FITC) was used as the secondary at a 1/250 dilution.

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