abcam

Product datasheet

Anti-alpha Tubulin antibody [GT114] ab184613

7 References 9 Images

Overview

Product name	Anti-alpha Tubulin antibody [GT114]
Description	Mouse monoclonal [GT114] to alpha Tubulin
Host species	Mouse
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human, Drosophila melanogaster, Zebrafish **Predicted to work with:** Cow, Pig, Chimpanzee, Rhesus monkey
Immunogen	Full length protein within Human alpha Tubulin. The exact sequence is proprietary. Database link: P68366
Positive control	Jurkat, Raji, K562, THP1, NCI-H929, 293T, A431, HeLa, HepG2, H1299, HCT116, MCF7, NT2D1, U87-MG, NIH 3T3, mouse brain, PC12, rat brain, drosophila and zebrafish eye whole cell lysates/extracts; Human mesenchymal stem cells, Hela cells and HeLa xenograft.
General notes	Abcam is committed to meeting high standards of ethical manufacturing and as such, we will be discontinuing this product, which has been generated by the ascites method, within the next year. We are sorry for any inconvenience this may cause. If you would like help finding an alternative product, please do not hesitate to contact our scientific support team.

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 long term. Avoid freeze / thaw cycle.
Purity	Protein G purified
Clonality	Monoclonal
Clone number	GT114
Isotype	IgG2a

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab184613 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		1/100 - 1/1000.
WB		1/1000 - 1/10000. Predicted molecular weight: 50 kDa.
IHC-P		1/100 - 1/1000.

Target

Function

Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha chain.

Sequence similarities

Belongs to the tubulin family.

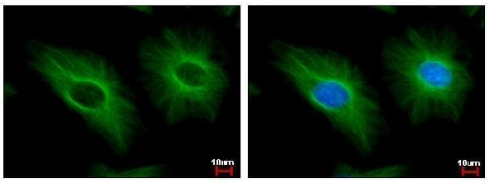
Post-translational modifications

Some glutamate residues at the C-terminus are polyglutamylated. This modification occurs exclusively on glutamate residues and results in polyglutamate chains on the gamma-carboxyl group. Also monoglycylated but not polyglycylated due to the absence of functional TTLL10 in human. Monoglycylation is mainly limited to tubulin incorporated into axonemes (cilia and flagella) whereas glutamylation is prevalent in neuronal cells, centrioles, axonemes, and the mitotic spindle. Both modifications can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylation, and reciprocally. The precise function of such modifications is still unclear but they regulate the assembly and dynamics of axonemal microtubules.
Acetylation of alpha chains at Lys-40 stabilizes microtubules and affects affinity and processivity of microtubule motors. This modification has a role in multiple cellular functions, ranging from cell motility, cell cycle progression or cell differentiation to intracellular trafficking and signaling.

Cellular localization

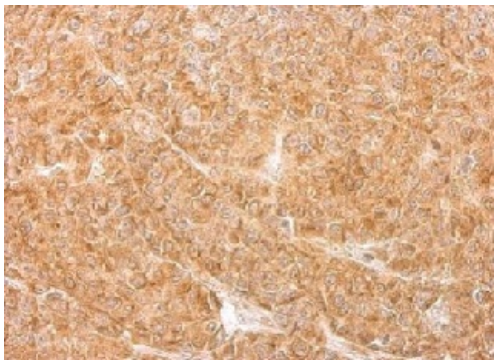
Cytoplasm > cytoskeleton.

Images



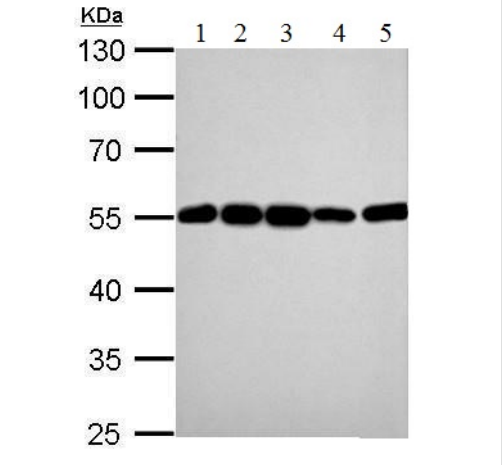
Immunocytochemistry/ Immunofluorescence - Anti-alpha Tubulin antibody [GT114] (ab184613)

Immunofluorescent analysis of ice-cold MeOH (for 5 min) fixed HeLa cells, labeling alpha Tubulin using ab184613 at a 1/500 dilution (green) and Hoechst 33342 staining (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-alpha Tubulin antibody [GT114] (ab184613)

Immunohistochemical analysis of paraffin-embedded HeLa xenograft, labeling alpha Tubulin using ab184613 at a 1/200 dilution.



Western blot - Anti-alpha Tubulin antibody [GT114] (ab184613)

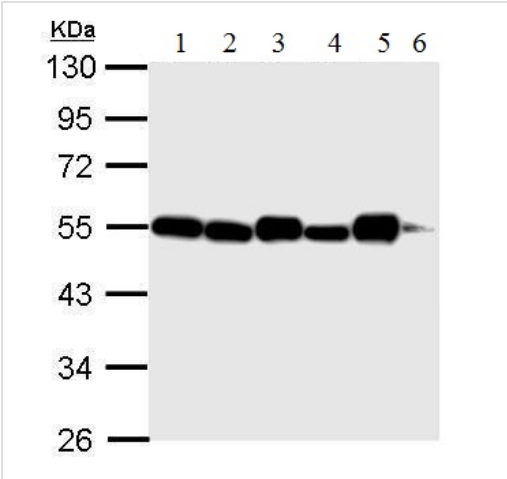
All lanes : Anti-alpha Tubulin antibody [GT114] (ab184613) at 1/5000 dilution

Lane 1 : Jurkat whole cell lysate/extract
Lane 2 : Raji whole cell lysate/extract
Lane 3 : K562 whole cell lysate/extract
Lane 4 : THP1 whole cell lysate/extract
Lane 5 : NCI-H929 whole cell lysate/extract

Lysates/proteins at 30 µg per lane.

Predicted band size: 50 kDa

10% SDS-PAGE



Western blot - Anti-alpha Tubulin antibody [GT114] (ab184613)

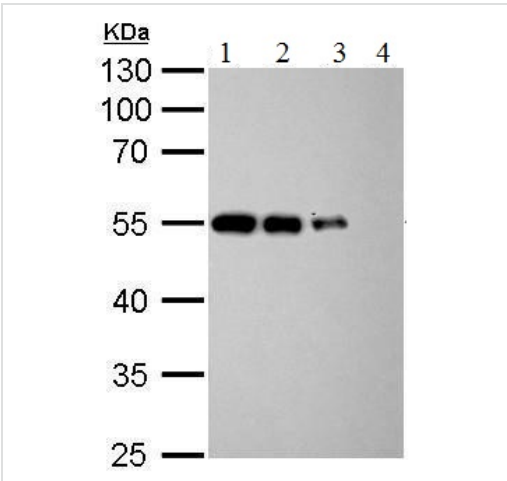
All lanes : Anti-alpha Tubulin antibody [GT114] (ab184613) at 1/5000 dilution

Lane 1 : 293T whole cell lysate/extract
Lane 2 : NIH 3T3 whole cell lysate/extract
Lane 3 : mouse brain whole cell lysate/extract
Lane 4 : PC12 whole cell lysate lysate/extract
Lane 5 : Rat brain whole cell lysate/extract
Lane 6 : Drosophila whole cell lysate/extract

Lysates/proteins at 30 µg per lane.

Predicted band size: 50 kDa

10% SDS-PAGE

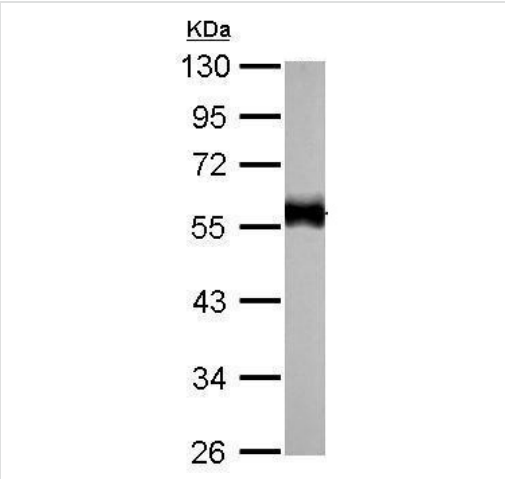


Western blot - Anti-alpha Tubulin antibody [GT114] (ab184613)

All lanes : Anti-alpha Tubulin antibody [GT114] (ab184613) at 1/5000 dilution

Lane 1 : 293T whole cell lysate/extract at 20 µg
Lane 2 : 293T whole cell lysate/extract at 10 µg
Lane 3 : 293T whole cell lysate/extract at 5 µg
Lane 4 : 293T whole cell lysate/extract at 1 µg

Predicted band size: 50 kDa

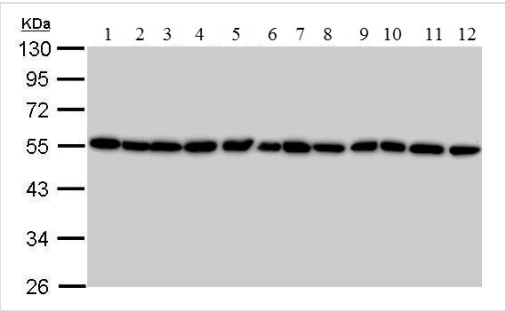


Western blot - Anti-alpha Tubulin antibody [GT114] (ab184613)

Anti-alpha Tubulin antibody [GT114] (ab184613) at 1/1000 dilution + zebrafish eye lysate/extract at 30 µg

Predicted band size: 50 kDa

10% SDS-PAGE



Western blot - Anti-alpha Tubulin antibody [GT114] (ab184613)

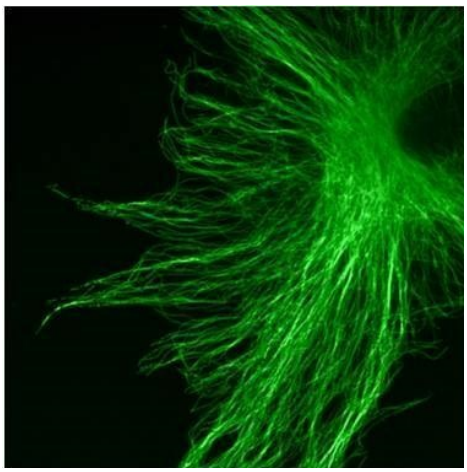
All lanes : Anti-alpha Tubulin antibody [GT114] (ab184613) at 1/10000 dilution

Lane 1 : Jurkat whole cell lysate/extract
Lane 2 : Raji whole cell lysate/extract
Lane 3 : 293T whole cell lysate/extract
Lane 4 : A431 whole cell lysate/extract
Lane 5 : HeLa whole cell lysate/extract
Lane 6 : HepG2 whole cell lysate/extract
Lane 7 : H1299 whole cell lysate/extract
Lane 8 : HCT116 whole cell lysate/extract
Lane 9 : MCF7 whole cell lysate/extract
Lane 10 : NT2D1 whole cell lysate/extract
Lane 11 : PC3 whole cell lysate/extract
Lane 12 : U87-MG whole cell lysate/extract

Lysates/proteins at 30 µg per lane.

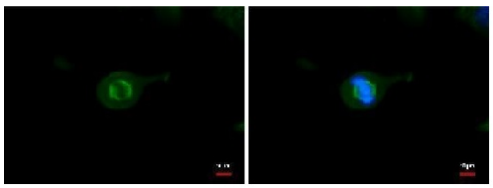
Predicted band size: 50 kDa

10% SDS-PAGE



Immunocytochemistry/ Immunofluorescence - Anti-alpha Tubulin antibody [GT114] (ab184613)

Immunofluorescent analysis of 4% paraformaldehyde fixed Human mesenchymal stem cells labeling alpha Tublin using ab184613 at a 1/50 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-alpha Tubulin antibody [GT114] (ab184613)

Immunofluorescent analysis of -20▌ 100% methanol (for 5 min) fixed HeLa cells labeling alpha Tublin using ab184613 at a 1/500 dilution (green) and Hoechst 33342 staining (blue).

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