abcam

Product datasheet

Anti-TUBA4A antibody [EPR13477(B)] - BSA and Azide free ab249984

Recombinant RabMAb

7 Images

Overview

Product name	Anti-TUBA4A antibody [EPR13477(B)] - BSA and Azide free
Description	Rabbit monoclonal [EPR13477(B)] to TUBA4A - BSA and Azide free
Host species	Rabbit
Specificity	Tubulin proteins have very high homology. The immunogen for this product is based on the TUBA4A protein. There is a chance that this product will detect other tubulin family members. The cross reactivity has not been experimentally determined.
Tested applications	**Suitable for:** IHC-P, IP, WB, Flow Cyt (Intra), ICC/IF
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	ab249984 is the carrier-free version of **ab177479**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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. 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 production For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Affinity purified
Clonality	Monoclonal
Clone number	EPR13477(B)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab249984 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
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 50 kDa.
Flow Cyt (Intra)		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

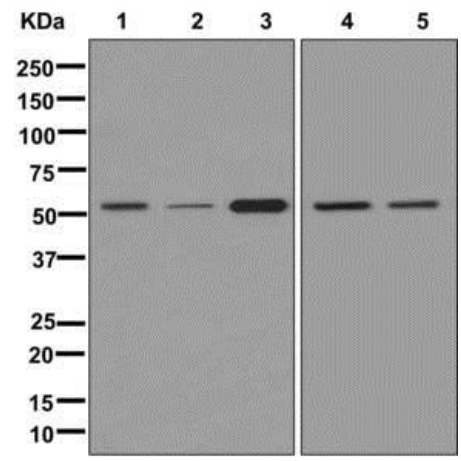
Target

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-tubulins 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



Western blot - Anti-TUBA4A antibody [EPR13477(B)] - BSA and Azide free (ab249984)

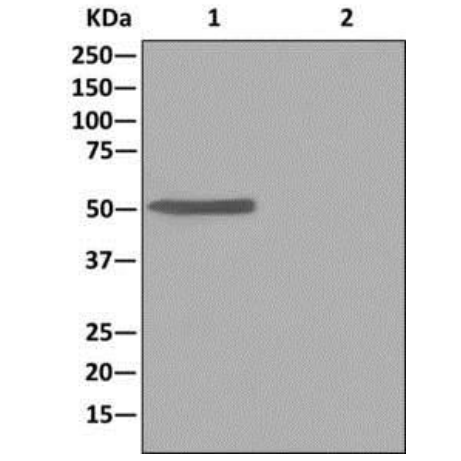
All lanes : Anti-TUBA4A antibody [EPR13477(B)] (**ab177479**) at 1/1000 dilution

Lane 1 : Molt-4 cell lysate
Lane 2 : A431 cell lysate
Lane 3 : Jurkat cell lysate
Lane 4 : HeLa cell lysate
Lane 5 : K562 cell lysate

Lysates/proteins at 10 µg per lane.

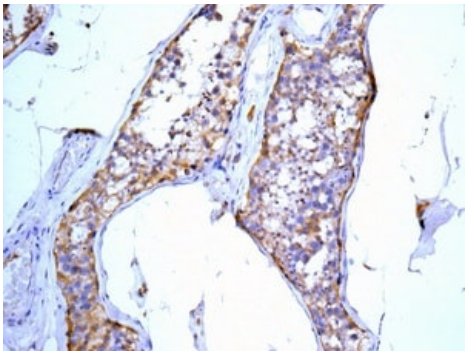
Predicted band size: 50 kDa

This data was developed using **ab177479**, the same antibody clone in a different buffer formulation.



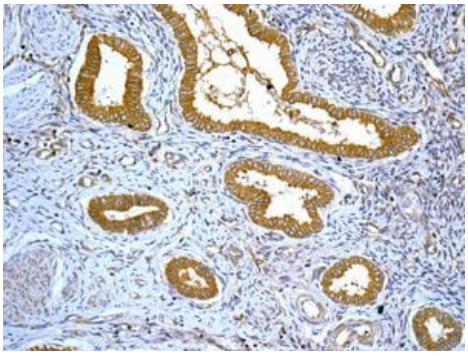
Immunoprecipitation - Anti-TUBA4A antibody [EPR13477(B)] - BSA and Azide free (ab249984)

This data was developed using **ab177479**, the same antibody clone in a different buffer formulation.Western blot analysis on immunoprecipitation pellet from (1) Jurkat cell lysate or (2) 1X PBS (negative control) using **ab177479**, and HRP-conjugated anti-rabbit IgG preferentially detecting the non-reduced form of rabbit IgG.



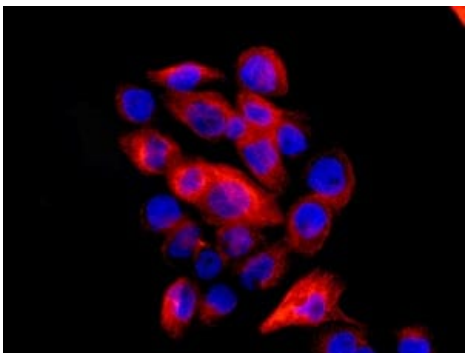
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TUBA4A antibody [EPR13477(B)] - BSA and Azide free (ab249984)

This data was developed using **ab177479**, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling TUBA4A with **ab177479** at 1/100 dilution. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



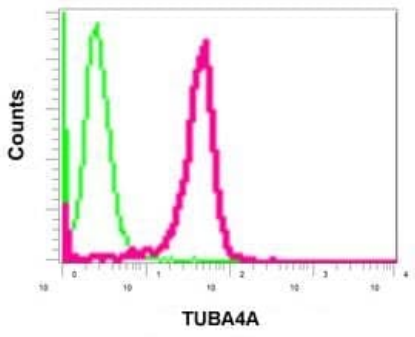
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TUBA4A antibody [EPR13477(B)] - BSA and Azide free (ab249984)

This data was developed using **ab177479**, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded Human uterus tissue labeling TUBA4A with **ab177479** at 1/100 dilution. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-TUBA4A antibody [EPR13477(B)] - BSA and Azide free (ab249984)

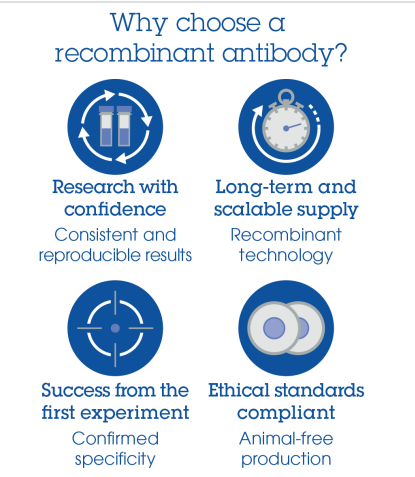
This data was developed using **ab177479**, the same antibody clone in a different buffer formulation.Immunofluorescent analysis of A431 cells labeling TUBA4A with **ab177479** at 1/100 dilution (red). DAPI nuclear staining (blue).



Flow Cytometry (Intracellular) - Anti-TUBA4A antibody [EPR13477(B)] - BSA and Azide free (ab249984)

This data was developed using **ab177479**, the same antibody clone in a different buffer formulation.

Intracellular flow cytometric analysis of permeabilized K562 cells labeling TUBA4A with **ab177479** at 1/10 dilution (red) compared to a rabbit IgG negative control (green).



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