abcam

ab177479

Anti-TUBA4A antibody [EPR13477(B)] - Loading Control

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 50% Tissue culture supernatant, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR13477(B)
Purity	Tissue culture supernatant
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.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250

Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Expected

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information TUBA4A

Function Tubulin is the major constituent of microtubules, a cylinder consisting of laterally associated linear protofilaments composed of alpha- and beta-tubulin heterodimers. Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms. Below the cap, tubulin dimers are in GDP-bound state, owing to GTPase activity of alpha-tubulin.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Supplementary info

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

Activity summary	TUBA4A also known as Tubulin Alpha 4A helps in the polymerization of microtubules acting as a core component of the cytoskeleton. It weighs approximately 50 kDa. This protein is expressed in various tissues including the nervous system and muscles. It plays a role in maintaining cellular structure and functions in cellular transport and division.
Biological function summary	Tubulin Alpha 4A is involved in the dynamic assembly and disassembly of microtubules contributing to cell shape and intracellular transport. It forms part of the microtubule complex and interacts with other tubulin isoforms to provide stability and flexibility to microtubule structures. This protein is essential for dividing cells as it supports the mitotic spindle's function during cell division.

Pathways	The TUBA4A protein actively participates in cytoskeleton regulation and signal transduction. It is part of the MAPK signaling pathway important for cell division and differentiation. Components like MAP kinases and related tubulins work together within these pathways to mediate cellular responses to various stimuli facilitating critical cell functions and adaptability.
Associated diseases and disorders	TUBA4A has associations with neurodegenerative conditions and cancers. Mutations in TUBA4A have a link to amyotrophic lateral sclerosis (ALS) where disruptions in microtubule function lead to neuronal damage. Additionally aberrant expression of TUBA4A may contribute to tumor progression where interactions with proteins like beta-tubulin disrupt cellular adhesion and division mechanisms.

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

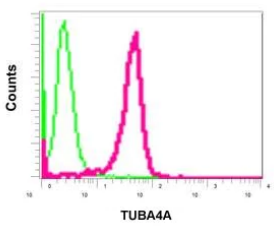
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

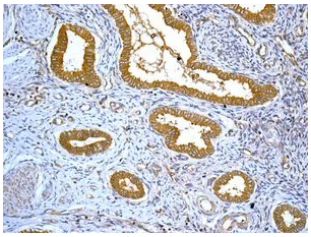
6 product images



Flow Cytometry (Intracellular) - Anti-TUBA4A antibody [EPR13477(B)] - Loading Control (ab177479)

TUBA4A Flow Cytometry (Intracellular) staining using rabbit Anti-TUBA4A antibody

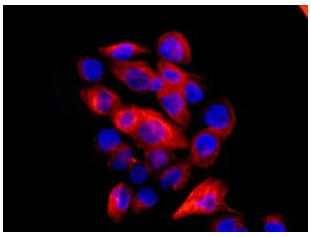
Intracellular flow cytometric analysis of permeabilized K562 cells labeling TUBA4A with ab177479 at 1/10 dilution (red) compared to a rabbit IgG negative control (green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TUBA4A antibody [EPR13477(B)] - Loading Control (ab177479)

TUBA4A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TUBA4A antibody

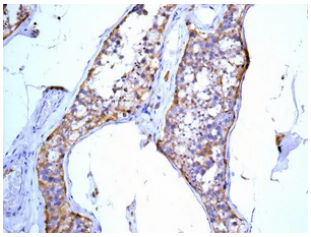
Immunohistochemical analysis of paraffin-embedded Human uterus tissue labeling TUBA4A with ab177479 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-TUBA4A antibody [EPR13477(B)] - Loading Control (ab177479)

TUBA4A Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-TUBA4A antibody

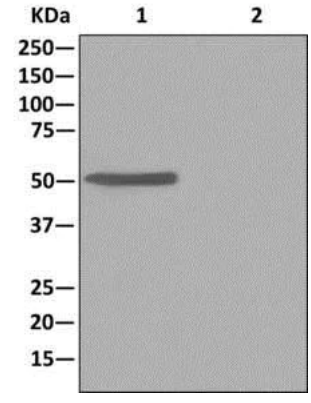
Immunofluorescent analysis of A431 cells labeling TUBA4A with ab177479 at 1/100 dilution (red). DAPI nuclear staining (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TUBA4A antibody [EPR13477(B)] - Loading Control (ab177479)

TUBA4A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TUBA4A antibody

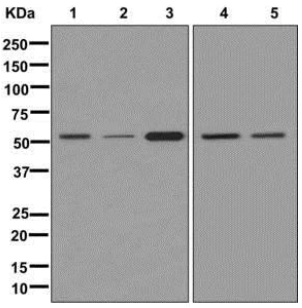
Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling TUBA4A with ab177479 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-TUBA4A antibody [EPR13477(B)] - Loading Control (ab177479)

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.
All lanes:
Immunoprecipitation - Anti-TUBA4A antibody [EPR13477(B)] - Loading Control (ab177479)

Predicted band size: 50 kDa



Western blot - Anti-TUBA4A antibody [EPR13477(B)] - Loading Control (ab177479)

TUBA4A Western blot staining using rabbit Anti-TUBA4A antibody

All lanes:
Western blot - Anti-TUBA4A antibody [EPR13477(B)] - Loading Control (ab177479) at 1/1000 dilution

Lane 1:
Molt-4 cell lysate at 10 µg

Lane 2:
A431 cell lysate at 10 µg

Lane 3:
Jurkat cell lysate at 10 µg

Lane 4:
HeLa cell lysate at 10 µg

Lane 5:
K562 cell lysate at 10 µg

Predicted band size: 50 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.