abcam

ab204034

Alexa Fluor® 647 Anti-beta I Tubulin + beta IV Tubulin + beta VI Tubulin antibody [EPR16775]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR16775
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information TUBB4A

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	Blue Ice
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, Store in the dark

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.

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Supplementary info

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

Activity summary	Beta IV Tubulin also known as TUBB4 is an important component of the microtubule structure within cells. It has a molecular mass of approximately 50 kDa. This protein is a critical part of the cytoskeleton and is expressed in a variety of tissues including neuronal tissues. Beta IV Tubulin plays a role in forming dynamic structures that aid in maintaining cell shape facilitating intracellular transport and enabling cell division. Researchers often use beta tubulin staining techniques to observe microtubules in cells which is important for understanding cellular processes.
Biological function summary	Beta IV Tubulin contributes significantly to the stability and function of microtubule networks. It is a member of the tubulin family and often forms tubulin heterodimers which are building blocks of microtubules. These microtubules are essential for many cellular activities such as mitosis and transport of organelles. Beta IV Tubulin is integral to the microtubule-based cellular processes and its functions are critical for neuronal development and function because it is a part of the complex cytoskeletal framework.
Pathways	Beta IV Tubulin is deeply involved in cellular processes such as the MAP kinase pathway and cell cycle regulation. These pathways are pivotal in transmitting signals that regulate cellular processes including growth and differentiation. The protein interacts with other tubulin isotypes and motor proteins like dynein and kinesin contributing to intracellular transport and chromosomal segregation during cell division. These interactions highlight its importance in maintaining proper cellular responses and functions.
Associated diseases and disorders	Mutations or dysregulation of beta IV Tubulin are associated with neurological conditions like dystonia and Charcot-Marie-Tooth disease. These disorders underline the importance of beta IV Tubulin in neuronal health and development. The protein's interaction with other tubulins and motor proteins also relates it to neurodegenerative diseases where cytoskeletal integrity and function are often compromised. Understanding these interactions helps unravel the pathogenic mechanisms of these diseases and can guide therapeutic strategies.

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

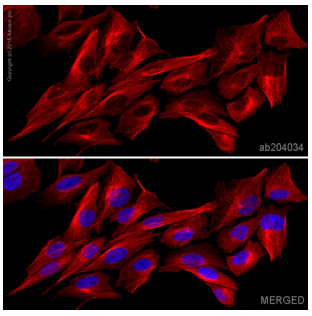
We do not recommend this combination. It is not covered by our product promise.

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.

1 product image



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-beta I Tubulin + beta IV Tubulin + beta VI Tubulin antibody [EPR16775] (ab204034)

Beta I Tubulin + beta IV Tubulin + beta VI Tubulin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-beta I Tubulin + beta IV Tubulin + beta VI Tubulin antibody

ab204034 staining beta I Tubulin + beta IV Tubulin + beta VI Tubulin in SKNSH cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab204034 at 1/100 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in SKNSH cells fixed with 100% methanol (5 min).

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