abcam

ab201831

Alexa Fluor® 488 Anti-beta I Tubulin antibody [EPR16778]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
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	EPR16778
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	1/50 - 1/100
Notes	This product gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 min) and 100% methanol (5 min).

Expected

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

Predicted

Species	Chicken, Hamster, Cow, Dog, Monkey
Dilution info	-
Notes	-

Flow Cyt (Intra)

Expected

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

Predicted

Species	Chicken, Hamster, Cow, Dog, Monkey
Dilution info	-
Notes	-

IHC-P

Expected

Species	Human, Mouse, Rat

Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Chicken, Hamster, Cow, Dog, Monkey
Dilution info	-
Notes	-

Target data

See full target information TUBB1

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.

Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.

Supplementary info

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

Activity summary	Beta I Tubulin also known as TUBB1 is an essential component of the microtubule cytoskeleton specifically expressed in hematopoietic cells such as platelets. It is a protein with a mass of approximately 50 kDa. This protein shares structural similarities with other beta tubulins forming heterodimers with alpha-tubulin to construct the microtubules necessary for cell shape and movement. Beta I Tubulin primarily localizes to regions where it aids in the dynamics of microtubule assembly and stabilization.
Biological function summary	Beta tubulins are important for proper cell division signal transduction and organelle positioning. Beta I Tubulin integrates into the microtubule complex playing an important role in platelet formation and function. The dynamic behavior of microtubules facilitated by beta I Tubulin and its interactions influences cytoskeletal organization enabling cells to maintain their architecture and transport intracellular components effectively.
Pathways	Beta I Tubulin becomes critical in signaling pathways that involve cytoskeleton dynamics such as the Rho GTPase signaling pathway which is essential for actin and microtubule dynamics. It works together with proteins like alpha-tubulin and actin to ensure the proper development of megakaryocytes precursors to platelets. The function of these pathways determines efficient platelet production and stabilization closely linked to overall cellular homeostasis and response to external stimuli.
Associated diseases and disorders	Beta I Tubulin has connections to conditions such as congenital macrothrombocytopenia and other platelet disorders. Mutations or dysregulations of beta I Tubulin can lead to abnormal platelet morphology and function impacting hemostasis. This protein also shows connections to alpha-tubulin in these disorders indicating the essential partnership between tubulin subunits in the formation of functional microtubules and emphasizing their significance in maintaining normal physiological states.

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

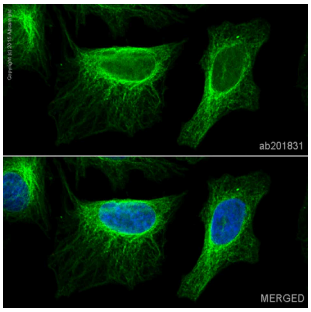
We do not recommend this combination. It is not covered by our product promise.

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® 488 Anti-beta I Tubulin antibody [EPR16778] (ab201831)

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

ab201831 staining beta I Tubulin in HeLa 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 ab201831 at a 1/50 dilution (shown in green). 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 HeLa cells fixed with 100% methanol (5 min).

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