abcam

ab303512

Anti-GMFB antibody [EPR25849-25]

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, 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	EPR25849-25
Purification technique	Affinity purification Protein A
Concentration	0.549 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Recombinant fragment - Human
Dilution info	1/1000
Notes	-

Species	Human

Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

Species	Rat
Dilution info	-
Notes	-

Species	Mouse
Dilution info	1/50
Notes	-

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

IP

Tested

Species	Mouse
Dilution info	1/30
Notes	-

Species	Human
Dilution info	1/30
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information GMFB

Function	This protein causes differentiation of brain cells, stimulation of neural regeneration, and inhibition of proliferation of tumor cells.

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	The Glia Maturation Factor Beta (GMFB) is an important regulator in brain development and maintenance. It is also known by the name GMF-b. This protein weighs approximately 17.2 kDa and is expressed in glial cells of the central nervous system as well as other tissues including skin and kidney. By stimulating differentiation and maturation of glial cells GMFB influences central nervous system homeostasis and glial responses to injury.
Biological function summary	GMFB influences numerous cellular processes such as brain maturation and injury repair. It does not form part of a complex but functions independently to exert influence on various targets. GMFB aids in the reorganization of the actin cytoskeleton which is important for cell shape and motility. It regulates neural signaling by interacting with signaling molecules enabling adaptability and cellular communication.

Pathways	GMFB significantly affects neurotrophic and inflammatory pathways. It interacts with proteins like PI3K and AKT to modulate neural survival and plasticity impacting brain health and response to stress. The protein also involves itself in inflammation-related pathways supporting cytokine production and immune responses during injury and infection. Through these interactions GMFB ensures optimal cellular function and organismal health.
Associated diseases and disorders	GMFB has links to neurodegenerative diseases and gliomas. Abnormal GMFB expression connects with Alzheimer's disease affecting neural health and functionality. In the context of gliomas GMFB influences tumor progression and microenvironment implicating it in tumorigenesis. In these disorders GMFB interacts with proteins such as GFAP and beta-amyloid leading to dysregulation in cellular signaling and pathological developments.

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

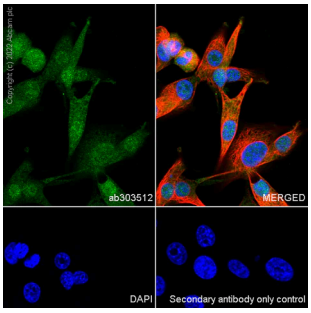
We do not recommend this combination. It is not covered by our product promise.

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.

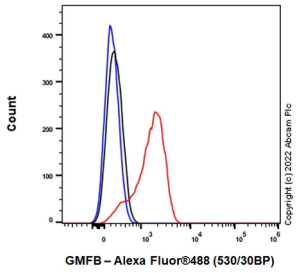
Full details and terms and conditions can be found here:
Terms & Conditions.

3 product images



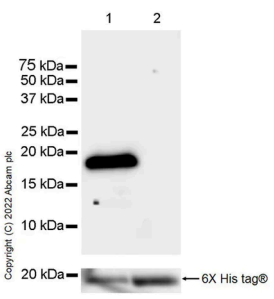
Immunocytochemistry/ Immunofluorescence - Anti-GMFB antibody [EPR25849-25] (ab303512)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized U-87 MG (human glioblastoma-astrocytoma epithelial cell) cells labelling GMFB with ab303512 at 1/50 (10.98 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green). Confocal image showing cytoplasmic and nuclear staining in U-87 MG cell line. The image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). is observed. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5 ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Flow Cytometry (Intracellular) - Anti-GMFB antibody [EPR25849-25] (ab303512)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized U-87 MG (human glioblastoma-astrocytoma epithelial cell) cells labelling GMFB with ab303512 at 1/50 dilution (1ug) (Red) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-GMFB antibody [EPR25849-25] (ab303512)

GMFB Western blot staining using rabbit Anti-GMFB antibody

Blocking / Diluting buffer and concentration: 5% NFDM/TBST This antibody does not cross-react with human GMFG.
All lanes:
Western blot - Anti-GMFB antibody [EPR25849-25] (ab303512) at 1/1000 dilution

Lane 1:
His-tagged human GMFB recombinant protein at 10 ng

Lane 2:
His-tagged human GMFG recombinant protein at 10 ng

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 17 kDa

Observed band size: 17 kDa

Exposure time: 15s

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