abcam

ab137106

Anti-14-3-3 gamma/YWHAG antibody [EPR9655(B)]

Recombinant | RabMAb

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	EPR9655(B)
Purification technique	Affinity purification Protein A

Reactivity data

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Expected

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

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, 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	-

Target data

See full target information YWHAG

Function	Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathways (PubMed:15696159, PubMed:16511572, PubMed:36732624). Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif (PubMed:15696159, PubMed:16511572, PubMed:36732624). Binding generally results in the modulation of the activity of the binding partner (PubMed:16511572). Promotes inactivation of WDR24 component of the GATOR2 complex by binding to phosphorylated WDR24 (PubMed:36732624). Participates in the positive regulation of NMDA glutamate receptor activity by promoting the L-glutamate secretion through interaction with BEST1 (PubMed:29121962). Reduces keratinocyte intercellular adhesion, via interacting with PKP1 and sequestering it in the cytoplasm, thereby reducing its incorporation into desmosomes (PubMed:29678907). Plays a role in mitochondrial protein catabolic process (also named MALM) that promotes the degradation of damaged proteins inside mitochondria (PubMed:22532927).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

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	14-3-3 gamma also known as YWHAG or 14-3-3 gamma protein is a member of the 14-3-3 protein family. These proteins play significant roles in signal transduction. 14-3-3 gamma is a dimeric protein with a molecular mass of about 28 to 32 kDa per monomer. It is ubiquitously expressed including in tissues such as brain muscle and heart. This protein influences a wide range of cellular processes by interacting with various signaling proteins often through recognition of phosphorylated serine or threonine motifs.
Biological function summary	Proteins within the 14-3-3 family like the 14-3-3 gamma function as adaptors and scaffolds in signal transduction pathways. They are part of multi-protein complexes that modulate interactions among proteins within the cell. 14-3-3 gamma interacts dynamically with a variety of target proteins assisting in their activities and proper localization. Its interaction facilitates cellular processes including cell cycle control apoptosis and stress response owing to its activity as a regulator of distinct signaling pathways.
Pathways	14-3-3 gamma participates in the MAPK/ERK pathway which is pivotal for cell growth and differentiation. It also plays an integral role in the PI3K/AKT pathway which contributes to survival and proliferation signals. In these pathways 14-3-3 gamma interacts with important kinases such as Raf and AKT. These interactions help transduce signals from receptors on the cell surface to the nucleus impacting gene expression and cellular responses.
Associated diseases and disorders	Research has linked 14-3-3 gamma to neurodegenerative diseases such as Alzheimer's disease. In Alzheimer's 14-3-3 gamma interacts with proteins like tau which become abnormally phosphorylated and aggregate. Additionally this protein has associations with certain cancers where it might influence tumor growth and progression through interactions with cell cycle regulatory proteins. Its modulation of key signaling pathways makes it a candidate of interest in the development of therapeutic strategies for these diseases.

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.

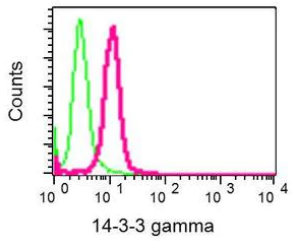
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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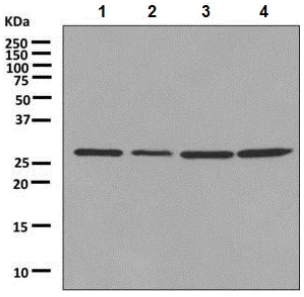
3 product images



Flow Cytometry (Intracellular) - Anti-14-3-3 gamma/YWHAG antibody [EPR9655(B)] (ab137106)

14-3-3 gamma/YWHAG Flow Cytometry (Intracellular) staining using rabbit Anti-14-3-3 gamma/YWHAG antibody

Intracellular flow cytometric analysis of K562 cells labelling 14-3-3-gamma with ab137106 at 1/10 dilution (red). Negative Rabbit IgG control shown in green.



Western blot - Anti-14-3-3 gamma/YWHAG antibody [EPR9655(B)] (ab137106)

All lanes:
Western blot - Anti-14-3-3 gamma/YWHAG antibody [EPR9655(B)] (ab137106) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
A431 cell lysate at 10 µg

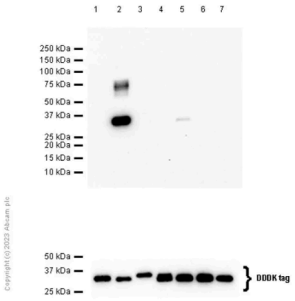
Lane 3:
293T cell lysate at 10 µg

Lane 4:
K562 cell lysate at 10 µg

Secondary

All lanes:
HRP-labelled Goat anti-Rabbit at 1/2000 dilution

Predicted band size: 28 kDa



Western blot - Anti-14-3-3 gamma/YWHAG antibody [EPR9655(B)] (ab137106)

Blocking and dilution buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-14-3-3 gamma/YWHAG antibody [EPR9655(B)] (ab137106) at 1/1000 dilution

Lane 1:
14-3-3 beta (YWHAB) Human Recombinant Protein 50 ng, with DDDK tagged at 50 ng

Lane 2:
14-3-3 gamma (YWHAG) Human Recombinant Protein 50 ng, with DDDK tagged at 50 ng

Lane 3:
14-3-3 epsilon (YWHAE) Human Recombinant Protein 50 ng, with DDDK tagged at 50 ng

Lane 4:
14-3-3 zeta (YWHAZ) Human Recombinant Protein 50 ng, with DDDK tagged at 50 ng

Lane 5:
14-3-3 eta (YWHAH) Human Recombinant Protein 50 ng, with DDDK tagged at 50 ng

Lane 6:
14-3-3 theta (YWHAQ) Human Recombinant Protein 50 ng, with DDDK tagged at 50 ng

Lane 7:
14-3-3 sigma (SFN) Human Recombinant Protein 50 ng, with DDDK tagged at 50 ng

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 28 kDa

Observed band size: 28 kDa

Exposure time: 20s

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