abcam

ab248088

Anti-Elongation factor 1-gamma antibody [EPR7200] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR7200
Purification technique	Affinity purification Protein A
Dissociation constant	1.31 x 10^{-11} M
Concentration	0.97 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human

Dilution info	-
Notes	For antigen retrieval, heat up to 98 degree C, below boiling, and then let cool for 10-20 minutes.

Expected

Species	Mouse
Dilution info	-
Notes	For antigen retrieval, heat up to 98 degree C, below boiling, and then let cool for 10-20 minutes.

Species	Rat
Dilution info	-
Notes	For antigen retrieval, heat up to 98 degree C, below boiling, and then let cool for 10-20 minutes.

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

WB

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information EEF1G

Function	Probably plays a role in anchoring the complex to other cellular components.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab248088 is the carrier-free version of ab124994.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	Elongation factor 1-gamma sometimes called EF-1γ is a protein that plays an important role in the process of protein biosynthesis. It is part of the elongation factor complex essential for the elongation phase of translation. This protein has a molecular weight of about 50 kDa. EF-1γ is expressed ubiquitously meaning it is found in many different types of tissues throughout the body indicating its broad necessity for cellular function.
Biological function summary	Elongation factor 1-gamma supports the stability and functionality of the larger elongation factor 1 complex which also includes EF-1 alpha EF-1 beta and EF-1 delta. This complex facilitates the economic and rapid engagement of aminoacyl-tRNA to the ribosome's A-site which is important in the synthesis of proteins ensuring that proteins are accurately and efficiently elongated during translation.

Pathways	Elongation factor 1-gamma has significance in the translation pathway and is also linked to the mTOR signaling pathway. The translation pathway is fundamental for general protein synthesis while the mTOR pathway is pivotal in regulating cell growth and proliferation. In these contexts elongation factor 1-gamma associates with other proteins such as elongation factor 1 alpha to optimize the elongation step of protein synthesis impacting cell growth and survival.
Associated diseases and disorders	Elongation factor 1-gamma shows connections to certain cancer types and neurodegenerative diseases. In cancer alterations or dysregulations of EF-1γ expression can influence tumor growth and development. Meanwhile relation to neurodegenerative disorders is under study as EF-1γ participates in protein synthesis with possible impacts on neuronal survival. Elongation factor 1-gamma's interactions with proteins like EF-1 alpha in these conditions spotlight its importance to cellular homeostasis and pathology.

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

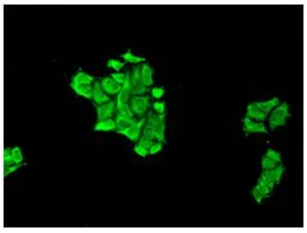
We do not recommend this combination. It is not covered by our product promise.

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.

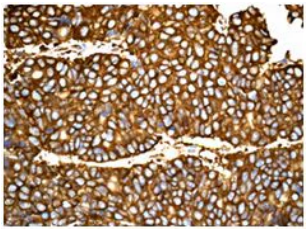
5 product images



Immunocytochemistry/ Immunofluorescence - Anti-Elongation factor 1-gamma antibody [EPR7200] - BSA and Azide free (ab248088)

Elongation factor 1-gamma Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Elongation factor 1-gamma antibody

This data was developed using ab124994, the same antibody clone in a different buffer formulation.
ab124994 at 1/100 dilution staining Elongation factor 1-gamma in HeLa cells by Immunofluorescence.

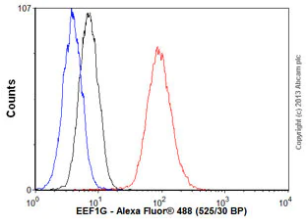


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Elongation factor 1-gamma antibody [EPR7200] - BSA and Azide free (ab248088)

Elongation factor 1-gamma Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Elongation factor 1-gamma antibody

This data was developed using ab124994, the same antibody clone in a different buffer formulation.
ab124994 at 1/250 dilution staining Elongation factor 1-gamma in paraffin-embedded Human pancreatic adenocarcinoma tissue by Immunohistochemistry.

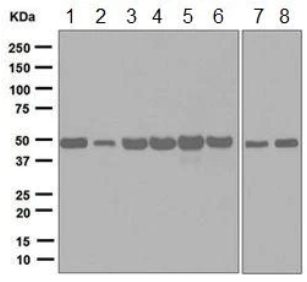
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Elongation factor 1-gamma antibody [EPR7200] - BSA and Azide free (ab248088)

Elongation factor 1-gamma Flow Cytometry (Intracellular) staining using rabbit Anti-Elongation factor 1-gamma antibody

This data was developed using ab124994, the same antibody clone in a different buffer formulation.
Overlay histogram showing HeLa cells stained with ab124994 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab124994, 1/10000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Western blot - Anti-Elongation factor 1-gamma antibody [EPR7200] - BSA and Azide free (ab248088)

This data was developed using ab124994, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-Elongation factor 1-gamma antibody [EPR7200] (ab124994) at 1/10000 dilution

Lane 1:
293T cell lysate at 10 µg

Lane 2:
HL-60 cell lysate at 10 µg

Lane 3:
C6 cell lysate at 10 µg

Lane 4:
RAW 264.7 cell lysate at 10 µg

Lane 5:
PC-12 cell lysate at 10 µg

Lane 6:
NIH/3T3 cell lysate at 10 µg

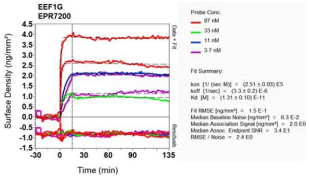
Lane 7:
HepG2 cell lysate at 10 µg

Lane 8:
HeLa cell lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP-conjugated at 1/2000 dilution

Predicted band size: 50 kDa



OI-RD Scanning - Anti-Elongation factor 1-gamma antibody [EPR7200] - BSA and Azide free (ab248088)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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