abcam

ab126735

Anti-eIF5A2 + eIF5A antibody [EPR7411-6]

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	EPR7411-6
Purification technique	Affinity purification Protein A
Dissociation constant	5.5×10^{-11} M
Concentration	0.108 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	

	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

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

Predicted

Species	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 Eukaryotic translation initiation factor 5A-2

Function	Translation factor that promotes translation elongation and termination, particularly upon ribosome stalling at specific amino acid sequence contexts (PubMed:14622290). Binds between the exit (E) and peptidyl (P) site of the ribosome and promotes rescue of stalled ribosome: specifically required for efficient translation of polyproline-containing peptides as well as other motifs that stall the ribosome. Acts as a ribosome quality control (RQC) cofactor by joining the RQC complex to facilitate peptidyl transfer during CAT tailing step (By similarity). Also involved in actin dynamics and cell cycle progression, mRNA decay and probably in a pathway involved in stress response and maintenance of cell wall integrity (By similarity).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°C

Notes

This product was previously published with the name Anti-eIF5A2 antibody [EPR7411-6]. Following in-house testing that showed reactivity to both recombinant Human eIF5A protein (ab87457) and recombinant Human eIF5A2 protein (ab99140), the name was updated in January 2021 to Anti-eIF5A2 + eIF5A antibody [EPR7411-6].

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 eIF5A2 protein known also as eukaryotic translation initiation factor 5A2 mechanically functions as a translation elongation factor. It plays a significant role in protein synthesis by aiding in the elongation phase of translation. The eIF5A2 protein has a molecular weight of approximately 17 kDa. Expression of eIF5A2 occurs widely in various tissues with a notable presence in cancerous tissues indicating its potential role in tumorigenesis.
Biological function summary	The protein eIF5A2 is involved in diverse cellular processes beyond translation. It localizes in both the cytoplasm and nucleus affecting cell proliferation differentiation and apoptosis. eIF5A2 is not traditionally considered as part of a complex but interacts with ribosomes during the translation process to exert its function. It also influences the synthesis of specific proteins that are important for maintaining cell cycle machinery and responses to stress.
Pathways	EIF5A2 integrates into the regulation of translation and apoptosis pathways. One key pathway involves its links to the mTOR signaling pathway which affects cell growth and survival. Similar proteins involved in this network include eIF5A another isoform closely related to eIF5A2 and components of the ribosomal machinery. eIF5A2 through its effects on protein synthesis influences pathways that coordinate cellular responses to nutrient availability and growth signals.
Associated diseases and disorders	Cognitive disorders and various cancers involve the eIF5A2 protein. Aberrant expression and mutation of eIF5A2 can lead to unregulated protein synthesis contributing to cancer progression. The protein has connections with oncogenic pathways where alterations in its expression result in dysregulated cellular growth and survival. eIF5A2 interactions with proteins like c-Myc which is implicated in oncogenesis further establish its role in tumorigenic processes making it a target for cancer research and potential therapeutic intervention.

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

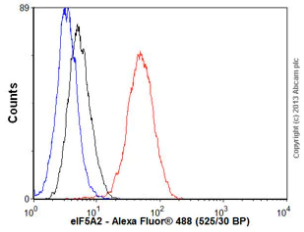
We do not recommend this combination. It is not covered by our product promise.

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.

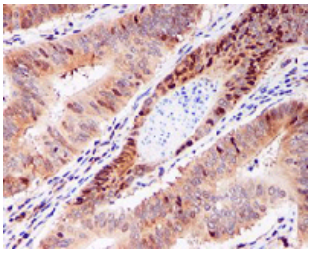
5 product images



Flow Cytometry (Intracellular) - Anti-eIF5A2 + eIF5A antibody [EPR7411-6] (ab126735)

EIF5A2 + eIF5A Flow Cytometry (Intracellular) staining using rabbit Anti-eIF5A2 + eIF5A antibody

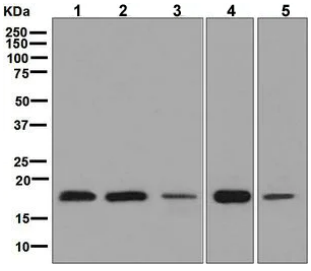
Overlay histogram showing HeLa cells stained with ab126735 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab126735, 1/100 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) (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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF5A2 + eIF5A antibody [EPR7411-6] (ab126735)

EIF5A2 + eIF5A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-eIF5A2 + eIF5A antibody

ab126735 at 1/100 dilution, labeling eIF5A2 + eIF5A in Formalin fixed Paraffin-embedded Human ovarian carcinoma tissue by Immunohistochemistry.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-eIF5A2 + eIF5A antibody [EPR7411-6] (ab126735)

All lanes:
Western blot - Anti-eIF5A2 + eIF5A antibody [EPR7411-6] (ab126735) at 1/1000 dilution

Lane 1:
293T cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

Lane 3:
A431 cell lysate at 10 µg

Lane 4:
CaCo-2 cell lysate at 10 µg

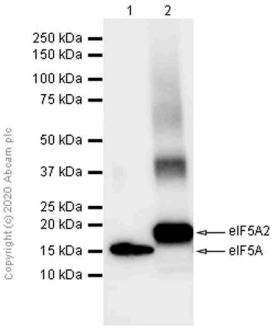
Lane 5:
HepG2 cell lysate at 10 µg

Secondary

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

Developed using the ECL technique.

Predicted band size: 17 kDa



Western blot - Anti-eIF5A2 + eIF5A antibody [EPR7411-6] (ab126735)

EIF5A2 + eIF5A Western blot staining using rabbit Anti-eIF5A2 + eIF5A antibody

Blocking buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-eIF5A2 + eIF5A antibody [EPR7411-6] (ab126735) at 1/2000 dilution

Lane 1:
Western blot - Recombinant Human eIF5A protein (Tag Free) (ab87457) at 0.01 µg

Lane 2:
Western blot - Recombinant Human eIF5A2 protein (His tag N-Terminus) (ab99140) at 0.01 µg

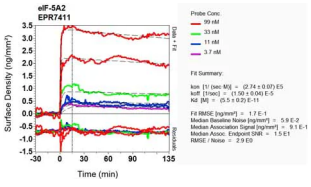
Secondary

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

Predicted band size: 17 kDa

Observed band size: 15 kDa, 20 kDa

Exposure time: 20s



OI-RD Scanning - Anti-eIF5A2 + eIF5A antibody [EPR7411-6] (ab126735)

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'.