abcam

ab133744

Anti-ARIH2/TRIAD1 antibody [EPR7670]

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	EPR7670
Purification technique	Affinity purification Protein A
Dissociation constant	7.8×10^{-10} M
Concentration	0.116 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

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

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

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 ARIH2

Function	E3 ubiquitin-protein ligase, which catalyzes ubiquitination of target proteins together with ubiquitin-conjugating enzyme E2 UBE2L3 (PubMed:16118314, PubMed:17646546, PubMed:19340006, PubMed:24076655, PubMed:33268465, PubMed:34518685, PubMed:38418882). Acts as an atypical E3 ubiquitin-protein ligase by working together with cullin-5-RING ubiquitin ligase complex (ECS complex, also named CRL5 complex) and initiating ubiquitination of ECS substrates: associates with ECS complex and specifically mediates addition of the first ubiquitin on ECS targets (PubMed:33268465, PubMed:34518685, PubMed:38418882). The initial ubiquitin is then elongated (PubMed:33268465). E3 ubiquitin-protein ligase activity is activated upon binding to neddylated form of the cullin-5 (CUL5) component of the ECS complex (PubMed:24076655). Together with the ECS(ASB9) complex, catalyzes ubiquitination of CKB (PubMed:33268465). Promotes ubiquitination of DCUN1D1 (PubMed:30587576). Mediates 'Lys-6', 'Lys-48'- and 'Lys-63'-linked polyubiquitination (PubMed:16118314, PubMed:17646546, PubMed:19340006). May play a role in myelopoiesis (PubMed:19340006). (Microbial infection) Following infection by HIV-1 virus, acts together with a cullin-5-RING E3 ubiquitin-protein ligase complex (ECS complex) hijacked by the HIV-1 Vif protein, to catalyze ubiquitination and degradation of APOBEC3F and APOBEC3G.

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

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	ARIH2 also known as TRIAD1 is a RING-between-RING (RBR) E3 ubiquitin-protein ligase. It weights approximately 65 kDa. This protein facilitates the transfer of ubiquitin from E2 enzymes to substrates marking them for proteasomal degradation. ARIH2 is located mostly in the cytoplasm and nucleoplasm with high expression in immune cells such as macrophages and dendritic cells. It regulates ubiquitination which is important for controlling protein levels in the cell affecting cellular signal pathways and homeostasis.
Biological function summary	ARIH2 acts as an essential modulator of immune responses. By associating with the LUBAC complex (linear ubiquitin chain assembly complex) this protein contributes to the linear ubiquitination of specific substrates modulating immune signaling. Its activity affects the NF-κB signaling pathway a vital pathway in inflammation and immunity. ARIH2 influences anti-inflammatory responses and may balance immune homeostasis making it a critical player in immune system regulation.
Pathways	ARIH2 plays a significant role in the ubiquitylation pathway and the NF-κB signaling pathway. The protein cooperates with other members of the pathway like HOIP and SHARPIN to mediate immune responses through linear ubiquitin chains. This regulation influences the activation of NF-κB leading to changes in gene expression related to immune and inflammatory responses. ARIH2 is also involved in the regulation of the Wnt signaling pathway where it interacts with various signaling proteins to modulate developmental processes and cellular growth.
Associated diseases and disorders	ARIH2 has implications in autoimmune diseases and cancer. Its regulation of immune responses connects it to autoimmune conditions where the body's immune system attacks its own cells. By influencing NF-κB signaling through proteins like LUBAC ARIH2 affects inflammation contributing to the pathogenesis of autoimmune diseases. In cancer ARIH2's role in protein degradation pathways can alter cell growth and survival connecting it to tumor development and

progression. Its interaction with proteins such as HOIP in these pathways suggests its potential as a therapeutic target for both autoimmune disorders and cancer.

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

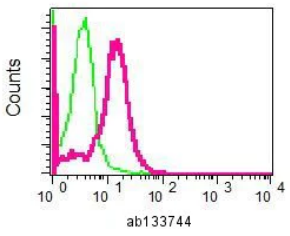
We do not recommend this combination. It is not covered by our product promise.

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.

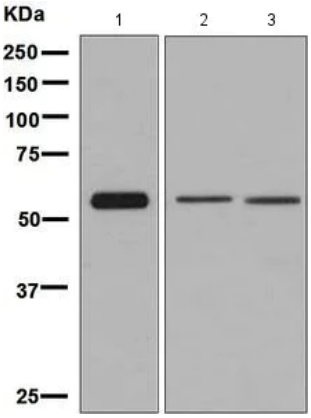
3 product images



Flow Cytometry (Intracellular) - Anti-ARIH2/TRIAD1 antibody [EPR7670] (ab133744)

ARIH2/TRIAD1 Flow Cytometry (Intracellular) staining using rabbit Anti-ARIH2/TRIAD1 antibody

Intracellular flow cytometrical analysis of permeabilized K562 cells labelling ARIH2/TRIAD1 with ab133744 at 1/10 (red) with rabbit IgG negative control (green).



Western blot - Anti-ARIH2/TRIAD1 antibody [EPR7670] (ab133744)

ARIH2/TRIAD1 Western blot staining using rabbit Anti-ARIH2/TRIAD1 antibody

All lanes:
Western blot - Anti-ARIH2/TRIAD1 antibody [EPR7670] (ab133744) at 1/1000 dilution

Lane 1:
Jurkat cell lysate at 10 µg

Lane 2:
K562 cell lysate at 10 µg

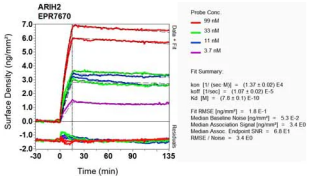
Lane 3:
293T (Human embryonic kidney epithelial cell) cell lysate at 10 µg

Secondary

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

Predicted band size: 57 kDa

Observed band size: 58 kDa



OI-RD Scanning - Anti-ARIH2/TRIAD1 antibody [EPR7670] (ab133744)

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'.