abcam

Product datasheet

Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free ab249284

KO VALIDATED Recombinant RabMAb

9 Images

Overview

Product name	Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free
Description	Rabbit monoclonal [EPR10410] to Argonaute-2 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), IHC-P, ICC/IF, WB **Unsuitable for:** IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	ab249284 is the carrier-free version of **ab156870**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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. 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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR10410
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab249284 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. The mouse and rat recommendation is based on the WB results. This antibody may not be suitable for IHC with mouse or rat samples. See **IHC antigen retrieval protocols**
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 97 kDa.

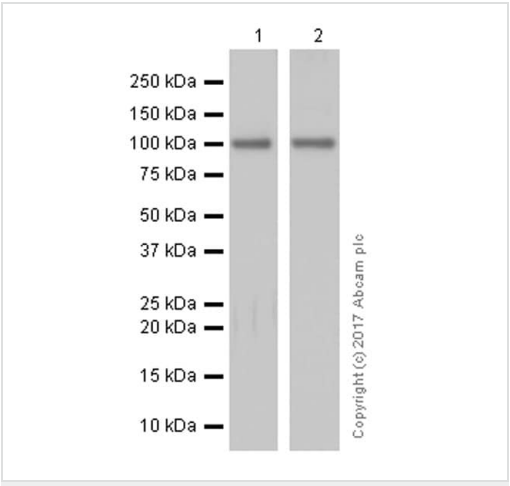
Application notes Is unsuitable for IP.

Target

Function Required for RNA-mediated gene silencing (RNAi) by the RNA-induced silencing complex (RISC). The 'minimal RISC' appears to include EIF2C2/AGO2 bound to a short guide RNA such as a microRNA (miRNA) or short interfering RNA (siRNA). These guide RNAs direct RISC to complementary mRNAs that are targets for RISC-mediated gene silencing. The precise mechanism of gene silencing depends on the degree of complementarity between the miRNA or siRNA and its target. Binding of RISC to a perfectly complementary mRNA generally results in silencing due to endonucleolytic cleavage of the mRNA specifically by EIF2C2/AGO2. Binding of RISC to a partially complementary mRNA results in silencing through inhibition of translation, and this is independent of endonuclease activity. May inhibit translation initiation by binding to the 7-methylguanosine cap, thereby preventing the recruitment of the translation initiation factor eIF4-E. May also inhibit translation initiation via interaction with EIF6, which itself binds to the 60S

	ribosomal subunit and prevents its association with the 40S ribosomal subunit. The inhibition of translational initiation leads to the accumulation of the affected mRNA in cytoplasmic processing bodies (P-bodies), where mRNA degradation may subsequently occur. In some cases RISC-mediated translational repression is also observed for miRNAs that perfectly match the 3' untranslated region (3'-UTR). Can also upregulate the translation of specific mRNAs under certain growth conditions. Binds to the AU element of the 3'-UTR of the TNF (TNF-alpha) mRNA and upregulates translation under conditions of serum starvation. Also required for transcriptional gene silencing (TGS), in which short RNAs known as antigene RNAs or agRNAs direct the transcriptional repression of complementary promoter regions.
Sequence similarities	Belongs to the argonaute family. Ago subfamily. Contains 1 PAZ domain. Contains 1 Piwi domain.
Domain	The Piwi domain may perform RNA cleavage by a mechanism similar to that of RNase H. However while RNase H utilizes a triad of Asp-Asp-Glu (DDE) for metal ion coordination, this protein appears to utilize a triad of Asp-Asp-His (DDH).
Post-translational modifications	Hydroxylated. 4-hydroxylation appears to enhance protein stability but is not required for miRNA-binding or endonuclease activity.
Cellular localization	Cytoplasm > P-body. Nucleus. Translational repression of mRNAs results in their recruitment to P-bodies. Translocation to the nucleus requires IMP8.

Images



Western blot - Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free (ab249284)

All lanes : Anti-Argonaute-2 antibody [EPR10410] (**ab156870**) at 1/5000 dilution (purified)

Lane 1 : Rat liver lysates
Lane 2 : Mouse kidney lysates

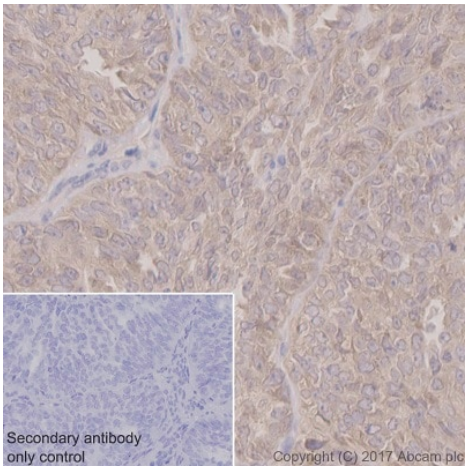
Lysates/proteins at 20 µg per lane.

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

Predicted band size: 97 kDa

This data was developed using **ab156870**, the same antibody clone in a different buffer formulation.

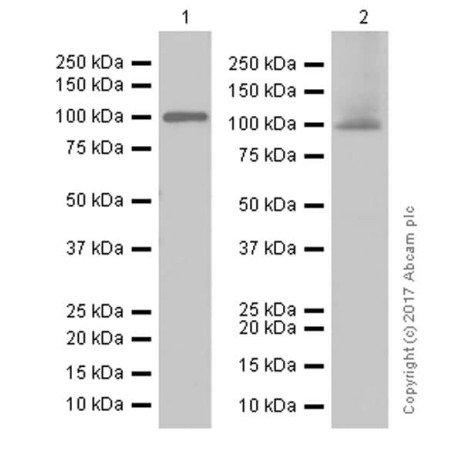
Blocking and dilution buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free (ab249284)

This data was developed using **ab156870**, the same antibody clone in a different buffer formulation.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human ovarian carcinoma tissue sections labeling Argonaute -2 with purified **ab156870** at 1:100 dilution (1.9 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, pH9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Western blot - Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free (ab249284)

All lanes : Anti-Argonaute-2 antibody [EPR10410] (**ab156870**) at 1/1000 dilution (purified)

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2 : HUVEC (Human umbilical vein endothelial cell) whole cell lysates

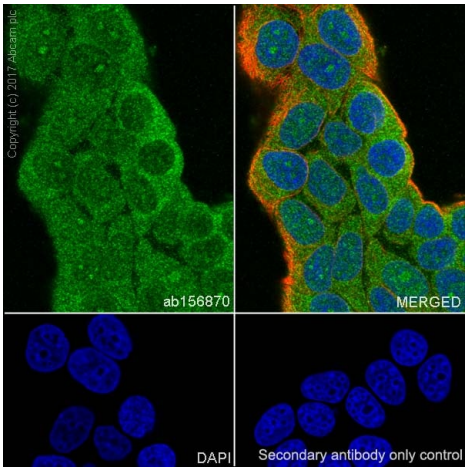
Lysates/proteins at 15 µg per lane.

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

Predicted band size: 97 kDa

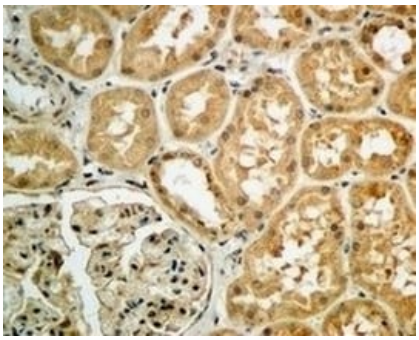
This data was developed using **ab156870**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.



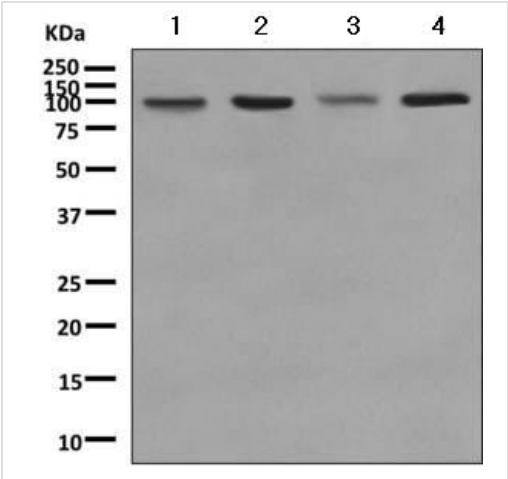
Immunocytochemistry/ Immunofluorescence - Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free (ab249284)

This data was developed using **ab156870**, the same antibody clone in a different buffer formulation.Immunocytochemistry/ Immunofluorescence analysis of MCF-7 (Human breast adenocarcinoma epithelial cell) cells labeling Argonaute-2 with Purified **ab156870** at 1:200 dilution (9.5µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). **ab150077** Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free (ab249284)

This data was developed using **ab156870**, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling Ago2 / eIF2C2 with unpurified **ab156870** at 1/50 dilution. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Western blot - Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free (ab249284)

All lanes : Anti-Argonaute-2 antibody [EPR10410] (**ab156870**) at 1/1000 dilution (unpurified)

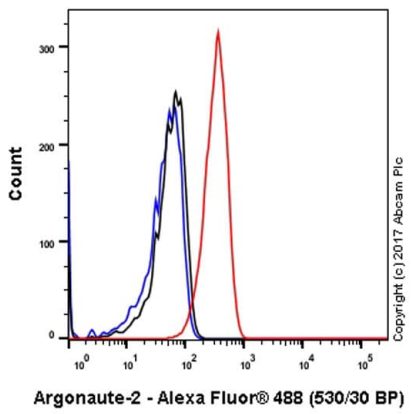
Lane 1 : HeLa cell lysate
Lane 2 : MCF7 cell lysate
Lane 3 : HepG2 cell lysate
Lane 4 : K562 cell lysate

Lysates/proteins at 10 µg per lane.

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

Predicted band size: 97 kDa

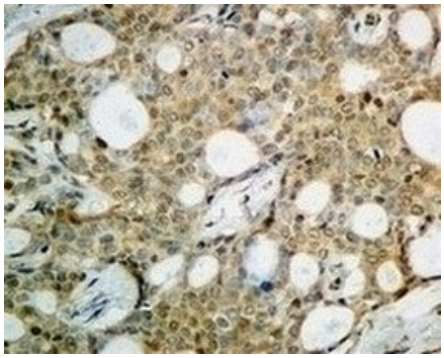
This data was developed using **ab156870**, the same antibody clone in a different buffer formulation.



Flow Cytometry (Intracellular) - Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free (ab249284)

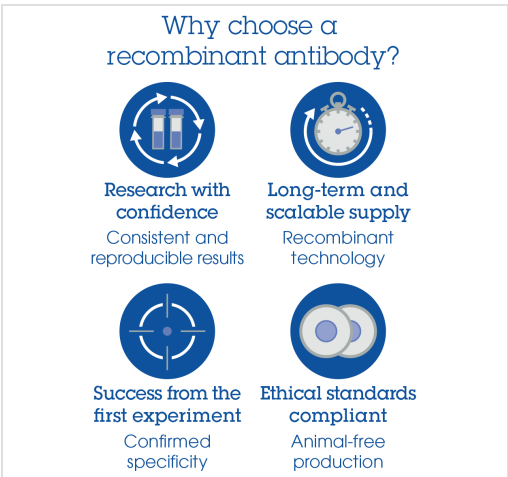
This data was developed using **ab156870**, the same antibody clone in a different buffer formulation.

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling Argonaute-2 (red) with unpurified **ab156870** at a 1/200 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (**ab172730**). Blue (unlabeled control) - Cells without incubation with the primary and secondary antibodies.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free (ab249284)

This data was developed using **ab156870**, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue labeling Ago2 / eIF2C2 with unpurified **ab156870** at 1/50 dilution. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Anti-Argonaute-2 antibody [EPR10410] - BSA and Azide free (ab249284)

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