abcam

Product datasheet

Anti-Argonaute-2 antibody [EPR10411] ab186733

KO 評価済 リコンビナント RabMAb

163 References 画像数 9

製品の概要

製品名	Anti-Argonaute-2 antibody [EPR10411]
製品の詳細	Rabbit monoclonal [EPR10411] to Argonaute-2
由来種	Rabbit
アプリケーション	**適用あり:** Flow Cyt (Intra), ICC/IF, IP, WB, IHC-P
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	HeLa, MCF7, HepG2, C6 and RAW 264.7 cell lysates; Human cervix carcinoma and Mouse kidney tissues; HeLa and MCF7 cells.
特記事項	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**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
バッファー	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR10411
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab186733の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/60. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/100 - 1/250.
IP		1/30 - 1/50.
WB		1/1000 - 1/2000. Detects a band of approximately 97 kDa (predicted molecular weight: 97 kDa).
IHC-P		1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

ターゲット情報

機能

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.

配列類似性

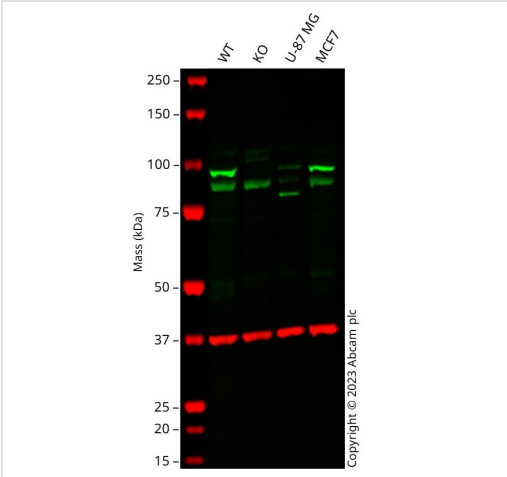
Belongs to the argonaute family. Ago subfamily.
Contains 1 PAZ domain.
Contains 1 Piwi domain.

ドメイン

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).

翻訳後修飾	Hydroxylated. 4-hydroxylation appears to enhance protein stability but is not required for miRNA-binding or endonuclease activity.
細胞内局在	Cytoplasm > P-body. Nucleus. Translational repression of mRNAs results in their recruitment to P-bodies. Translocation to the nucleus requires IMP8.

画像



Western blot - Anti-Argonaute-2 antibody [EPR10411] (ab186733)

All lanes : Anti-Argonaute-2 antibody [EPR10411] (ab186733) at 1/1000 dilution

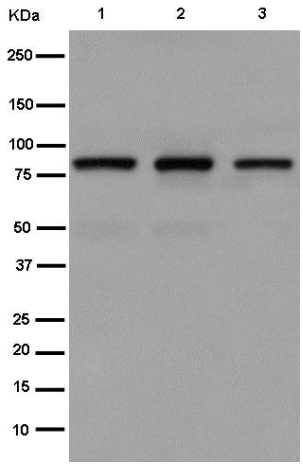
Lane 1 : Wild-type HCT 116 cell lysate
Lane 2 : AGO2 knockout HCT 116 cell lysate
Lane 3 : U-87 MG cell lysate
Lane 4 : MCF7 cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 97 kDa
Observed band size: 95 kDa

False colour image of Western blot: Anti-Argonaute-2 antibody [EPR10411] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab186733 was shown to bind specifically to Argonaute-2. A band was observed at 95 kDa in wild-type HCT 116 cell lysates with no signal observed at this size in AGO2 knockout cell line. To generate this image, wild-type and AGO2 knockout HCT 116 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5% milk in TBS-0.1% Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Western blot - Anti-Argonaute-2 antibody [EPR10411] (ab186733)

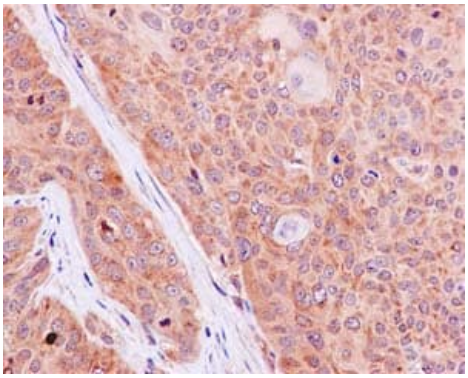
All lanes : Anti-Argonaute-2 antibody [EPR10411] (ab186733) at 1/1000 dilution

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

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

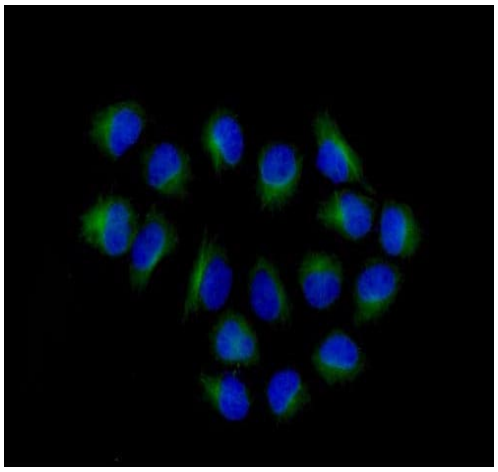
Predicted band size: 97 kDa
Observed band size: 97 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Argonaute-2 antibody [EPR10411] (ab186733)

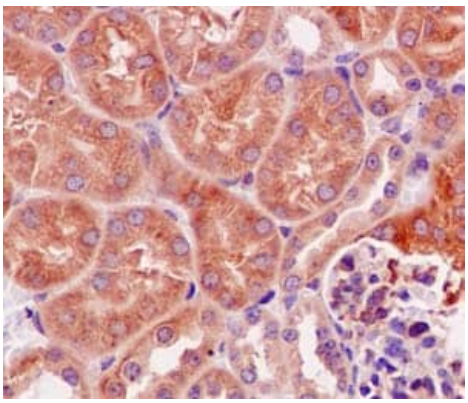
Immunohistochemical analysis of paraffin-embedded Human cervix carcinoma tissue labeling Ago2 / eIF2C2 with ab186733 at 1/100 dilution followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Argonaute-2 antibody [EPR10411] (ab186733)

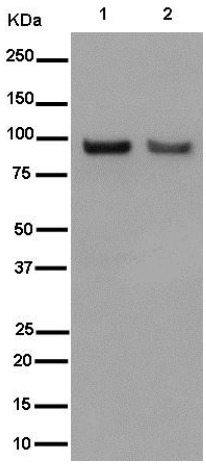
Immunofluorescent analysis of 4% paraformaldehyde-fixed HeLa cells labeling Ago2 / eIF2C2 with ab186733 at 1/250 dilution followed by Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody at 1/200 dilution. Counter stained with Dapi.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Argonaute-2 antibody [EPR10411] (ab186733)

Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling Ago2 / eIF2C2 with ab186733 at 1/100 dilution followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Western blot - Anti-Argonaute-2 antibody [EPR10411] (ab186733)

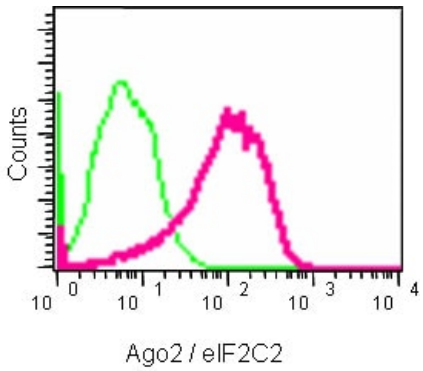
All lanes : Anti-Argonaute-2 antibody [EPR10411] (ab186733) at 1/1000 dilution

Lane 1 : C6 cell lysate
Lane 2 : RAW 264.7 cell lysate

Lysates/proteins at 10 µg per lane.

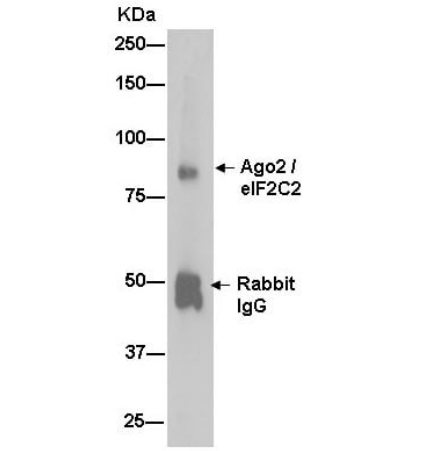
Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 97 kDa
Observed band size: 97 kDa



Intracellular flow cytometric analysis of2% paraformaldehyde-fixed MCF7 cells labeling Ago2 / eIF2C2 with ab186733 at 1/60 dilution (red) compared to aRabbit monoclonal IgG isotype control (green), followed byGoat anti rabbit IgG (FITC) secondary antibody at 1/150 dilution.

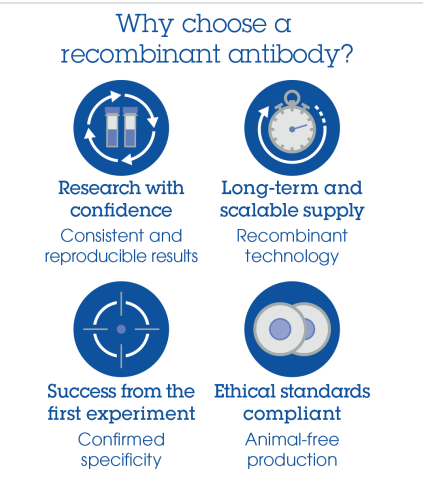
Flow Cytometry (Intracellular) - Anti-Argonaute-2 antibody [EPR10411] (ab186733)



Western blot analysis of Ago2 / eIF2C2 in MCF7 cell lysate immunoprecipitated with ab186733 at 1/50 dilution.

Secondary antibody: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution.

Immunoprecipitation - Anti-Argonaute-2 antibody [EPR10411] (ab186733)



Anti-Argonaute-2 antibody [EPR10411] (ab186733)

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