abcam

Product datasheet

Anti-Argonaute-2 antibody ab32381

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概述

产品名称	Anti-Argonaute-2抗体
描述	兔多克隆抗体to Argonaute-2
宿主	Rabbit
特异性	The immunogen used for this product shares 69% homology with AGO1. Cross-reactivity with this protein has not been confirmed experimentally.
经测试应用	**适用于:** IHC-P, WB
种属反应性	**与反应:** Human **预测可用于:** Mouse, Rat, Rabbit, Cow **不与反应:** Drosophila melanogaster
免疫原	Synthetic peptide corresponding to Argonaute-2 aa 350-450 conjugated to keyhole limpet haemocyanin. (Peptide available as **ab32380**)
常规说明	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

纯度	Immunogen affinity purified
克隆	**多克隆**
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用**ab32381**于以下的**经测试应用

"应用说明"**部分 下显示的**仅为**推荐的起始稀释度**;实际**最佳的稀释度/浓度应由使用者检定。**

应用	Ab评论	说明
IHC-P	(2)	Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	(3)	Use a concentration of 2 µg/ml. Detects a band of approximately 87 kDa (predicted molecular weight: 97 kDa).

靶标

功能 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.

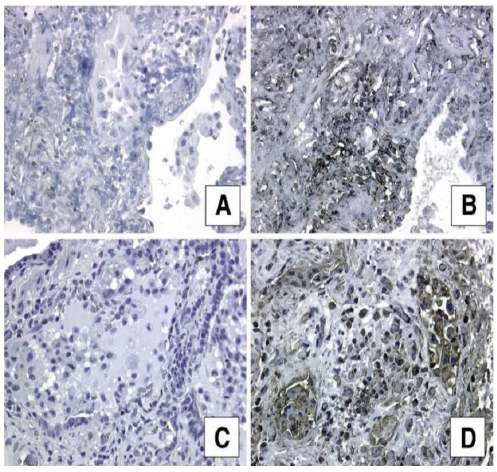
序列相似性 Belongs to the argonaute family. Ago subfamily.
Contains 1 PAZ domain.
Contains 1 Piwi domain.

结构域 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).

翻译后修饰 Hydroxylated. 4-hydroxylation appears to enhance protein stability but is not required for miRNA-binding or endonuclease activity.

细胞定位	Cytoplasm > P-body. Nucleus. Translational repression of mRNAs results in their recruitment to P-bodies. Translocation to the nucleus requires IMP8.

图片



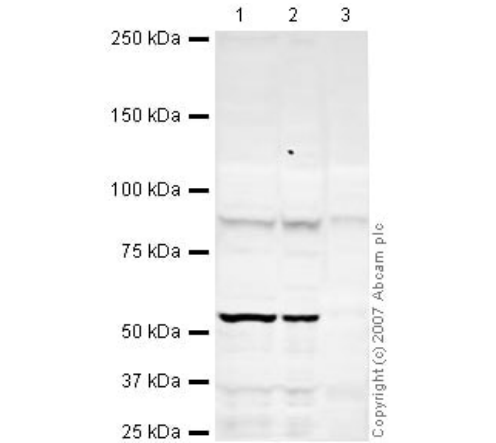
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Argonaute-2 antibody (ab32381)

Oak et al PLoS One. 2011;6(6):e21253. doi: 10.1371/journal.pone.0021253. Epub 2011 Jun 21. Fig 5. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

Immunohistochemical analysis of Argonaute2 (AGO2) in human tissues sections from slowly progressive, rapidly progressive, or normal biopsies.

Representative images of slowly progressive (A–B, E–F), rapidly progressive (C–D, G–H), and normal (I–J) biopsies stained with IgG control (A, C, E, G, & I) and anti-AGO2 antibody (B, D, F, H, & J) are shown. Images A, B, C, & D were stained with antibody concentrations of 20 µg/ml and images E, F, G, H, I, & J were stained with an antibody concentration of 4 µg/ml. Sections were counterstained with hematoxylin. Protein expression stains brown in this procedure (original magnification: ×200).

Panels A-D shown.



Western blot - Anti-Argonaute-2 antibody (ab32381)

All lanes : Anti-Argonaute-2 antibody (ab32381) at 2 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : Jurkat whole cell lysate (**ab7899**)
Lane 3 : HeLa (Human epithelial carcinoma cell line) Nuclear Lysate

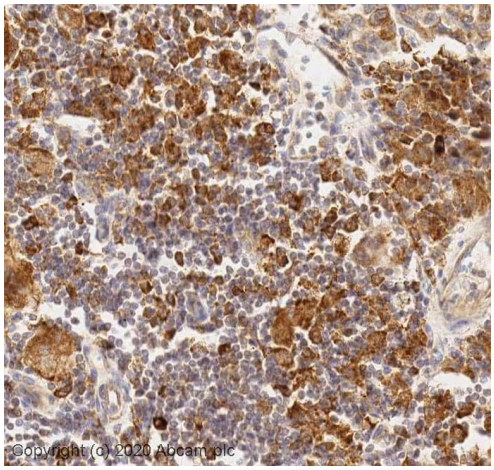
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 97 kDa
Observed band size: 87 kDa
Additional bands at: 55 kDa. We are unsure as to the identity of these extra bands.

The identification of the 55 kDa band is unclear but this band has also been observed in HeLa lysates in the Western Blot of **ab5072**, targeting Drosophila Ago2 / eIF2C2.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Argonaute-2 antibody (ab32381)

IHC image of Argonaute-2 antibody staining in a section of formalin-fixed paraffin-embedded human breast adenocarcinoma* performed on a Leica BOND™ system using the standard protocol. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab32381, 5ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

**Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre*

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