# abcam

## Product datasheet

# Anti-Argonaute-2 antibody ab5072

★★★★★ 4 Abreviews 26 References 2 图像

#### 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

经测试应用 适用于: WB

种属反应性 与反应: Drosophila melanogaster

不与反应: Human

免疫原 Synthetic peptide corresponding to Drosophila melanogaster Argonaute-2 aa 550-650

conjugated to keyhole limpet haemocyanin.

(Peptide available as ab24177)

常规说明 Please note the immunogen for this antibody has no sequence alignment to human dIFC2. When

tested in human, non-specific binding is observed.

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

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**克隆** 多克隆

同种型 lgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab5072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
WB	****(1)	1/500 - 1/1000. Detects a band of approximately 55, 95 kDa (predicted molecular weight: 106 kDa).  Detects a band of approximately 55 + 95 kDa (predicted molecular weight: 106 kDa). Swissprot suggests Ago 2 may have 50kDa form. Not yet tested in other applications. Optimal dilutions/concentrations should be determined by the end user.

#### 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 7methylguanosine 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 RISCmediated 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

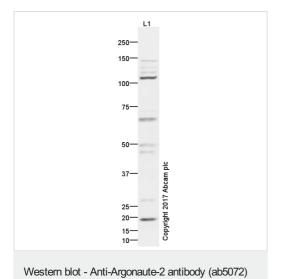
Hydroxylated. 4-hydroxylation appears to enhance protein stability but is not required for miRNA-

binding or endonuclease activity.

细胞定位

Cytoplasm > P-body. Nucleus. Translational repression of mRNAs results in their recruitment to P-

#### 图片



Anti-Argonaute-2 antibody (ab5072) at 1  $\mu$ g/ml + Schneider L2 whole cell lysate (**ab14893**) at 20  $\mu$ g

#### Secondary

Goat Anti-Rabbit IgG H&L (HRP) at 1/50000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 106 kDa **Observed band size:** 106 kDa

Additional bands at: 120 kDa, 19 kDa, 50 kDa, 65 kDa. We are

unsure as to the identity of these extra bands.

Exposure time: 30 seconds

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab5072 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution ab133406.

120kDa 100kDa 80kDa 60kDa 50kDa 40kDa

Western blot - Anti-Argonaute-2 antibody (ab5072)

Anti-Argonaute-2 antibody (ab5072) at 1/500 dilution + Drosophila lysate at 20  $\mu g$ 

### **Secondary**

Goat Anti-Rabbit IgG H&L (HRP) (ab6721)

**Predicted band size:** 106 kDa **Observed band size:** 55,95 kDa

Rabbit polyclonal to Ago2 (ab5072) at 1/500 on Drosophila lysate (20ug).

Detects a band of approximately 55 + 95 kDa (predicted molecular weight: 106 kDa). Swissprot suggests Ago 2 may have 50kDa form.

Secondary antibody - Goat polyclonal to rabbit lgG (HRP) - **ab6721**. Swissprot suggests Ago 2 may have 50kDa form.

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