

## Product datasheet

# Anti-Argonaute-2 antibody - CHIP Grade ab32381

★★★★☆ 10 Abreviews 38 References 画像数 4

### 製品の概要

製品名	Anti-Argonaute-2 antibody - CHIP Grade
製品の詳細	Rabbit polyclonal to Argonaute-2 - CHIP Grade
由来種	Rabbit
アプリケーション	適用あり: IP, IHC-P, ChIP, RIP, WB, ICC/IF
種交差性	交差種: Mouse, Rat, Human 交差が予測される動物種: Rabbit, Cow ▲非交差種: Drosophila melanogaster
免疫原	Synthetic peptide corresponding to Argonaute-2 aa 350-450 conjugated to keyhole limpet haemocyanin. (Peptide available as <a href="#">ab32380</a> )
ポジティブ・コントロール	ab32381 gives a positive result in Western Blot in the following whole cell lysates: HeLa (Human epithelial carcinoma cell line), Jurkat (Human T cell lymphoblast-like cell line), HeLa (Human epithelial carcinoma cell line) Nuclear Lysate

### 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 or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

### アプリケーション

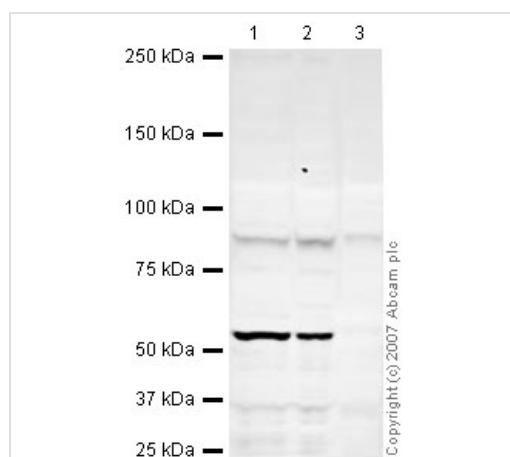
Our [Abpromise guarantee](#) covers the use of **ab32381** in the following tested applications.

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

アプリケーション	Abreviews	特記事項
IP		Use at an assay dependent concentration. PubMed: 24280866
IHC-P	★★★★☆	Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ChIP		Use at an assay dependent concentration. PubMed: 19696410
RIP	★★★★☆	Use at an assay dependent concentration.
WB	★★★★☆	Use a concentration of 2 µg/ml. Detects a band of approximately 87 kDa (predicted molecular weight: 97 kDa).
ICC/IF	★★★★☆	1/200.

## ターゲット情報

<b>機能</b>	<p>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.</p>
<b>配列類似性</b>	<p>Belongs to the argonaute family. Ago subfamily. Contains 1 PAZ domain. Contains 1 Piwi domain.</p>
<b>ドメイン</b>	<p>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).</p>
<b>翻訳後修飾</b>	<p>Hydroxylated. 4-hydroxylation appears to enhance protein stability but is not required for miRNA-binding or endonuclease activity.</p>
<b>細胞内局在</b>	<p>Cytoplasm &gt; P-body. Nucleus. Translational repression of mRNAs results in their recruitment to P-bodies. Translocation to the nucleus requires IMP8.</p>



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

**All lanes** : Anti-Argonaute-2 antibody - ChIP  
Grade (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

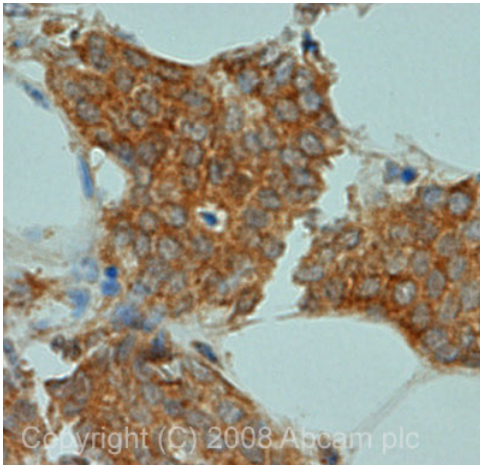
**Observed band size:** 87 kDa

**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  
following publication;

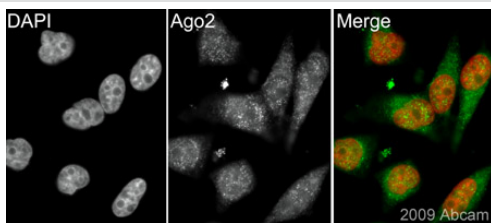
<http://www.ibiosci.or.kr/home/data/2004/00802>

in the Western Blot of ab5072, targeting  
Drosophila Ago2 / eIF2C2.



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

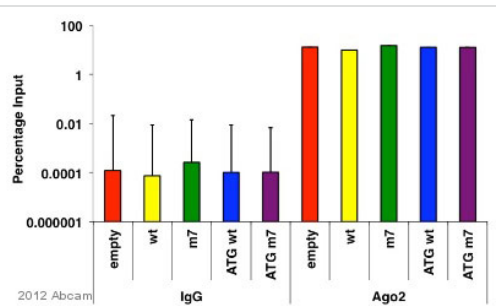
IHC image of Ago2/eIF2C2 staining in human breast cancer FFPE section, performed on a Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab32381, 5µg/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.



Immunocytochemistry/ Immunofluorescence - Anti-Argonaute-2 antibody - ChIP Grade (ab32381)

This image is courtesy of an Abreview submitted by Dr Kirk McManus

ab32381 (1/200) staining Ago2/ eIF2C2 in asynchronous HeLa cells (green). Cells were fixed with paraformaldehyde, permeabilised with 0.5% TritonX100/ PBS and counterstained with DAPI in order to highlight the nucleus (red). Please refer to abreview for further experimental details.



RIP - Anti-Argonaute-2 antibody - ChIP Grade (ab32381)

This image is courtesy of an anonymous Abreview

RIP analysis of 368T1 murine lung cancer cells using ab32381 to bind Ago2 / eIF2C2.

Cells were transfected with an empty vector (empty), a vector expressing wild-type Hmga2 (wt), a vector expressing a let-7 site mutated Hmga2 (m7), a vector expressing wild-type Hmga2 without a start codon (ATG wt), or a vector expressing a let-7 site mutated Hmga2 without a start codon (ATG m7). RIP was performed with 5 µg Ago2 / eIF2C2 or IgG antibody per 10<sup>7</sup> cells. Binding was detected using qRT-PCR.

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