

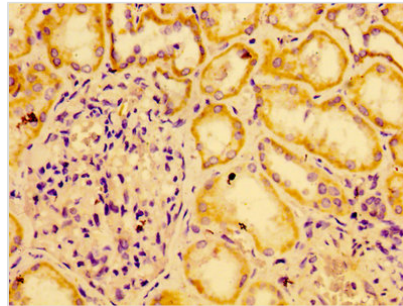


# AGO2 Antibody

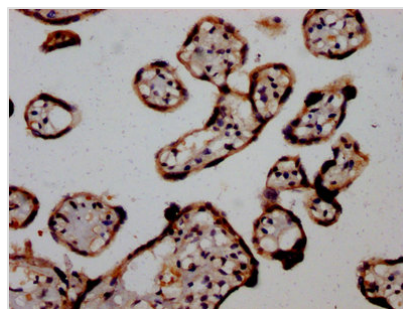
<b>Product Code</b>	CSB-PA891731LA01HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	Q9UKV8
<b>Immunogen</b>	Recombinant Human Protein argonaute-2 protein (517-818AA)
<b>Raised In</b>	Rabbit
<b>Species Reactivity</b>	Human, Mouse
<b>Tested Applications</b>	ELISA, WB, IHC, ChIP; Recommended dilution: WB:1:1000-1:5000, IHC:1:100-1:1500
<b>Relevance</b>	<p>Required for RNA-mediated gene silencing (RNAi) by the RNA-induced silencing complex (RISC). The minimal RISC appears to include 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 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 up-regulate 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 up-regulates 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>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, PH 7.4
<b>Purification Method</b>	>95%, Protein G purified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal



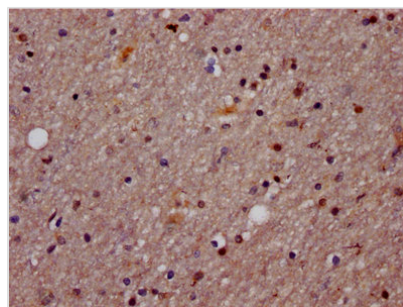
<b>Alias</b>	Protein argonaute-2 (Argonaute2) (hAgo2) (EC 3.1.26.n2) (Argonaute RISC catalytic component 2) (Eukaryotic translation initiation factor 2C 2) (eIF-2C 2) (eIF2C 2) (PAZ Piwi domain protein) (PPD) (Protein slicer), AGO2, EIF2C2
<b>Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Epigenetics and Nuclear Signaling
<b>Target Names</b>	AGO2

**Image**


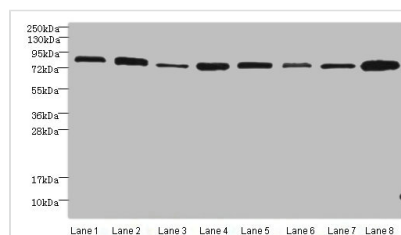
Immunohistochemistry of paraffin-embedded human kidney tissue using CSB-PA891731LA01HU at dilution of 1:100



IHC image of CSB-PA891731LA01HU diluted at 1:1200 and staining in paraffin-embedded human placenta tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



IHC image of CSB-PA891731LA01HU diluted at 1:1200 and staining in paraffin-embedded human brain tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.


**Western blot**

All lanes: Protein argonaute-2 antibody at 2µg/ml

- Lane 1: A549 whole cell lysate
- Lane 2: Jurkats whole cell lysate
- Lane 3: MCF-7 whole cell lysate
- Lane 4: HepG2 whole cell lysate
- Lane 5: Raw264.7 whole cell lysate
- Lane 6: K562 whole cell lysate
- Lane 7: Mouse liver tissue
- Lane 8: Mouse kidney tissue

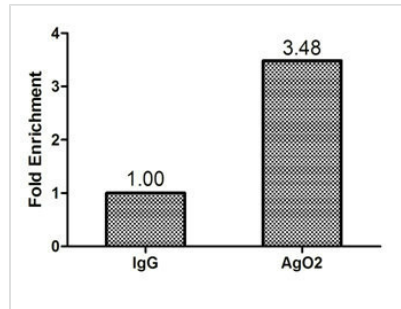
Secondary

Goat polyclonal to rabbit IgG at 1/10000 dilution



Predicted band size: 98, 94 kDa

Observed band size: 94 kDa



Chromatin Immunoprecipitation HeLa ( $1.1 \times 10^6$ ) were cross-linked with formaldehyde, sonicated, and immunoprecipitated with  $4 \mu\text{g}$  anti-AgO2 or a control normal rabbit IgG. The resulting ChIP DNA was quantified tissue using real-time PCR with primers (CSB-PP891731HU) against the SLC1A5 promoter.