

Rabbit AGO2 Polyclonal Antibody | anti-AGO2 antibody

AGO2 Antibody

CATALOG # AAA323070	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
-------------------------------	-----------------------	--	---

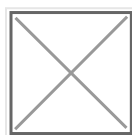
PRODUCT SYNONYMS

AGO2; Polyclonal Antibody; AGO2 Antibody; Ago 2; AGO2_HUMAN; Argonaute 2; argonaute 2; RISC catalytic component; Argonaute RISC catalytic component 2; Argonaute2; CTA-204B4.6; dAgo2; eIF 2C 2; eIF-2C 2; eIF2C2; Eif2c2; Eukaryotic translation initiation factor 2C 2; Eukaryotic translation initiation factor 2C subunit 2; hAgo2; MGC3183; PAZ Piwi domain protein; PPD; Protein argonaute-2; Protein slicer; Q10; Slicer protein; anti-AGO2 antibody

PRODUCT SPECIFICATIONS

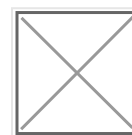
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	AGO2 antibody detects endogenous levels of AGO2.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	825
Applicable Applications for anti-AGO2 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human AGO2.
Subcellular Location	Cytoplasm > P-Body. Nucleus. Translational repression of mRNAs results in their recruitment to P-bodies. Translocation to the nucleus requires IMP8.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Xenopus
Similarity	Pig (100%), Zebrafish (91%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Xenopus (92%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)

AAA323070 at 1/100 staining Rat liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of extracts of K-562 cells, using AGO2 antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-AGO2 antibody	Function: 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. Subunit Structure: Interacts with DICER1 through its Piwi domain and with TARBP2 during assembly of the RNA-induced silencing complex (RISC). Together, DICER1, AGO2 and TARBP2 constitute the trimeric RISC loading complex (RLC), or micro-RNA (miRNA) loading complex (miRLC). Within the RLC/miRLC, DICER1 and TARBP2 are required to process precursor miRNAs (pre-miRNAs) to mature miRNAs and then load them onto AGO2. AGO2 bound to the mature miRNA constitutes the minimal RISC and may subsequently dissociate from DICER1 and TARBP2. Note however that the term RISC has also been used to describe the trimeric RLC/miRLC. The formation of RISC complexes containing siRNAs rather than miRNAs appears to occur independently of DICER1. Interacts with AGO1. Also interacts with DDB1, DDX5, DDX6, DDX20, DHX30, DHX36, DDX47, DHX9, ELAVL, FXR1, GEMIN4, HNRNPF, IGF2BP1, ILF3, IMP8, MATR3, PABPC1, PRMT5, P4HA1, P4HB, RBM4, SART3, TNRC6A, TNRC6B, UPF1 and YBX1. Interacts with the P-body components DCP1A and XRN1. Associates with polysomes and messenger ribonucleoproteins (mRNPs). Interacts with RBM4; the interaction is modulated under stress-induced conditions, occurs under both cell proliferation and differentiation conditions and in an RNA- and phosphorylation-independent manner. Interacts with LIMD1, WTIP and AJUBA. Interacts with TRIM71; the interaction increases in presence of RNA (PubMed:23125361). Interacts with APOBEC3G in an RNA-dependent manner. Interacts with APOBEC3A, APOBEC3C, APOBEC3F and APOBEC3H. Interacts with DICER1, TARBP2, EIF6, MOV10 and RPL7A (60S ribosome subunit); they form a large RNA-induced silencing complex (RISC) (PubMed:17507929). Interacts with FMR1 (PubMed:14703574). Interacts with ZFP36 (PubMed:15766526). Post-translational Modifications: Hydroxylated. 4-hydroxylation appears to enhance protein stability but is not required for miRNA-binding or endonuclease activity. Similarity: 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). Belongs to the argonaute family. Ago subfamily.
--	--

NCBI AND UNIPROT INFORMATION

NCBI GI #	257467482
NCBI GeneID	27161
NCBI Accession #	NP_001158095.1
NCBI GenBank Nucleotide #	NM_001164623.2
UniProt Accession #	Q9UKV8; Q8TCZ5; Q8WV58; Q96ID1
Molecular Weight	Observed: 90-95 kDa Predicted: 98 kDa
NCBI Official Full Name	protein argonaute-2 isoform 2
NCBI Official Synonym Full Names	argonaute 2, RISC catalytic component
NCBI Official Symbol	AGO2
NCBI Official Synonym Symbols	PPD; Q10; CASC7; EIF2C2; LINC00980

NCBI Protein Information	protein argonaute-2
UniProt Protein Name	Protein argonaute-2
UniProt Gene Name	AGO2
UniProt Synonym Gene Names	EIF2C2; Argonaute2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/ago2-antibody-immunohistochemistry-western-blot-elisa/323070>