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Product datasheet for TA387389

AGO2 Rabbit Polyclonal Antibody

Product data:

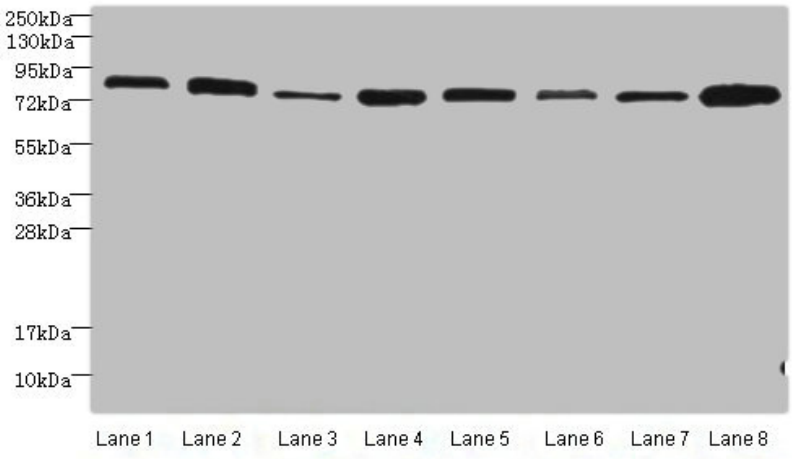
Product Type:	Primary Antibodies
Applications:	ChIP, IHC, WB
Recommended Dilution:	Recommended dilution: WB:1:1000-1:5000, IHC:1:100-1:1500
Reactivity:	Mouse, Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant Human Protein argonaute-2 protein (517-818AA)
Formulation:	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, PH 7.4
Concentration:	lot specific
Purification:	>95%, Protein G purified
Conjugation:	Unconjugated
Storage:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Stability:	1 year from dispatch.
Database Link:	Q9UKV8

View online »

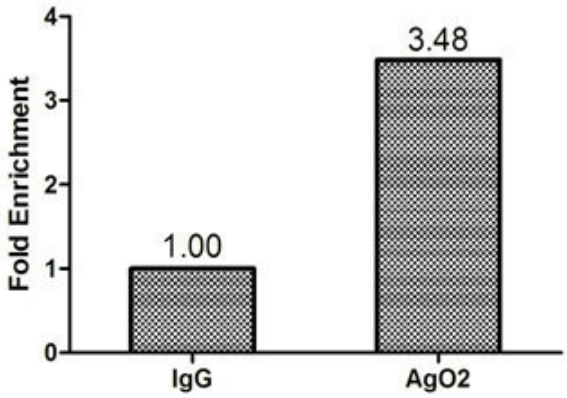
Background:

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.

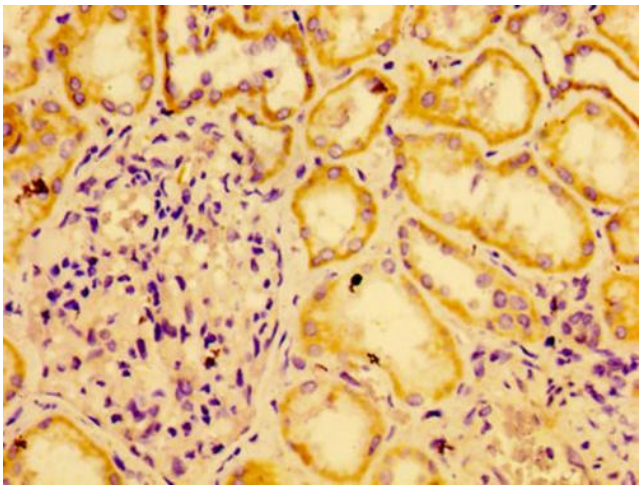
Product images:



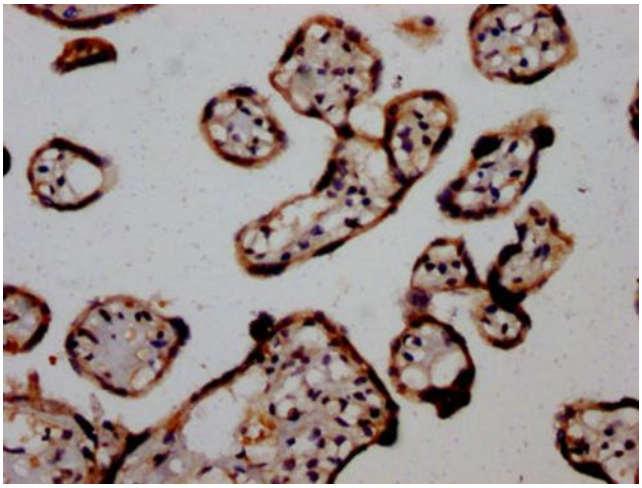
Western blot
All lanes: Protein argonaute-2 antibody at 2µg/ml
Lane 1: A549 whole cell lysate
Lane 2: Jurkats whole cell lysate
Lane 3: MCF-7 whole cell lysate
Lane 4: HepG2 whole cell lysate
Lane 5: Raw264.7 whole cell lysate
Lane 6: K562 whole cell lysate
Lane 7: Mouse liver tissue
Lane 8: Mouse kidney tissue
Secondary
Goat polyclonal to rabbit IgG at 1/10000 dilution
Predicted band size: 98, 94 kDa
Observed band size: 94 kDa



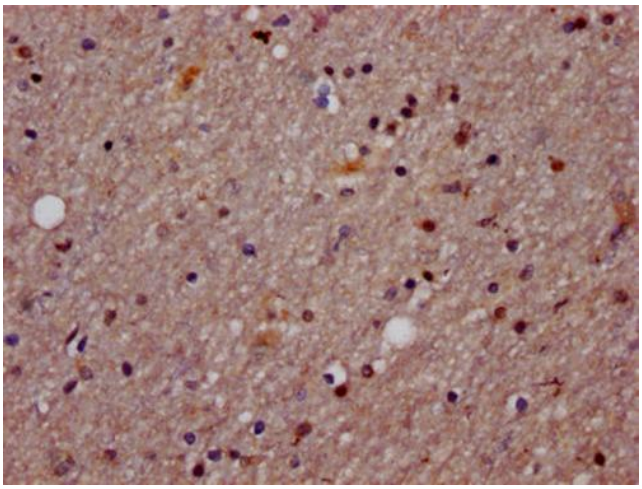
Chromatin Immunoprecipitation Hela ($1.1*10^6$) were cross-linked with formaldehyde, sonicated, and immunoprecipitated with 4µg anti-AgO2 or a control normal rabbit IgG. The resulting ChIP DNA was quantified tissue using real-time PCR with primers (CSB-PP891731HU) against the SLC1A5 promoter.



Immunohistochemistry of paraffin-embedded human kidney tissue using TA387389 at dilution of 1:100



IHC image of TA387389 diluted at 1:1200 and staining in paraffin-embedded human placenta tissue performed on a Leica BondTM 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 TA387389 diluted at 1:1200 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM 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.