

Anti-Ago2/eIF2C2 Picoband Antibody

Catalog # ABO12663

Product Information

Application	WB
Primary Accession	Q9UKV8
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Protein argonaute-2(AGO2) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	27161
Other Names	Protein argonaute-2 {ECO:0000255 HAMAP-Rule:MF_03031}, Argonaute2 {ECO:0000255 HAMAP-Rule:MF_03031}, hAgo2, 3.1.26.n2 {ECO:0000255 HAMAP-Rule:MF_03031}, Argonaute RISC catalytic component 2, Eukaryotic translation initiation factor 2C 2 {ECO:0000255 HAMAP-Rule:MF_03031}, eIF-2C 2 {ECO:0000255 HAMAP-Rule:MF_03031}, eIF2C 2 {ECO:0000255 HAMAP-Rule:MF_03031}, PAZ Piwi domain protein, PPD, Protein slicer {ECO:0000255 HAMAP-Rule:MF_03031}, AGO2, EIF2C2
Calculated MW	97208
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasm, P-body. Nucleus. Translational repression of mRNAs results in their recruitment to P-bodies. Translocation to the nucleus requires IMP8.
Source	Eukaryota
Protein Name	Protein argonaute-2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Ago2/ eIF2C2 (129-169aa KVSIKWVSCVSLQALHDALSGRLPSVPFETIQALDVVMRHL), identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.

Protein Information

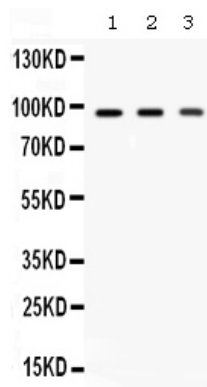
Name	AGO2 (HGNC:3263)
Synonyms	EIF2C2
Function	Required for RNA-mediated gene silencing (RNAi) by the RNA- induced silencing complex (RISC). The 'minimal RISC' appears to include AGO2 bound to a short guide RNA such as a microRNA (miRNA) or short interfering RNA (siRNA). These guide RNAs direct RISC 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 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.
Cellular Location	Cytoplasm, P-body. Nucleus Note=Translational repression of mRNAs results in their recruitment to P-bodies. Translocation to the nucleus requires IMP8

Background

Protein argonaute-2, also known as AGO2, is a protein that in humans is encoded by the EIF2C2 gene. This gene encodes a member of the Argonaute family of proteins which play a role in RNA interference. The encoded protein is highly basic, and contains a PAZ domain and a PIWI domain. It may interact with dicer1 and play a role in short-interfering-RNA-mediated gene silencing. Multiple transcript variants encoding different isoforms have been found for this gene.

Images

Western blot analysis of Ago2/eIF2C2 expression in rat brain extract (lane 1), mouse brain extract (lane 2) and HELA whole cell lysates (lane 3). Ago2/eIF2C2 at 97KD was detected using rabbit anti- Ago2/eIF2C2 Antigen Affinity purified polyclonal antibody (Catalog # ABO12663) at 0.5



??g/mL. The blot was developed using chemiluminescence (ECL) method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.