10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Ago2/eIF2C2 Picoband Antibody
Catalog # ABO12663

Specification

Anti-Ago2/eIF2C2 Picoband Antibody - 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.

Anti-Ago2/eIF2C2 Picoband Antibody - 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 MW KDa

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.

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.**

Anti-Ago2/eIF2C2 Picoband Antibody - 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 (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.

Cellular Location
Cytoplasm, P-body. Nucleus Note=Translational repression of mRNAs results in their recruitment to P-bodies. Translocation to the nucleus requires IMP8

Anti-Ago2/eIF2C2 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

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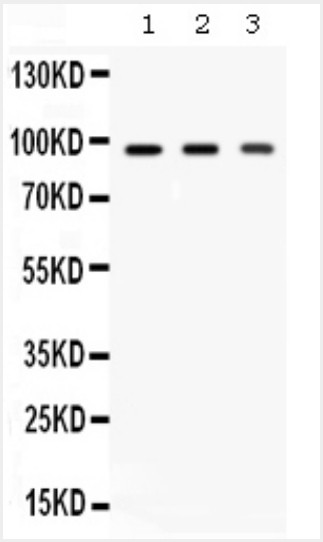
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Ago2/eIF2C2 Picoband Antibody - 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 .

Anti-Ago2/eIF2C2 Picoband Antibody - 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.