

Rabbit anti-Mouse Argonaute-2 Monoclonal Antibody | anti-AGO2 antibody

Recombinant Anti-Argonaute-2 Antibody, Rabbit Monoclonal

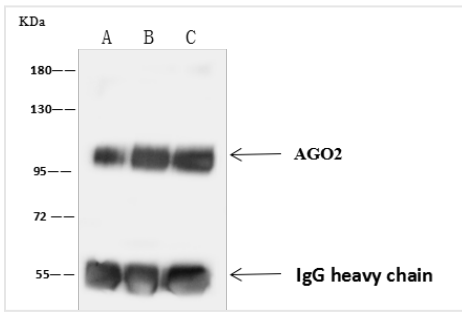
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA257206	Rabbit	Mouse	Immunoprecipitation, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

Argonaute-2; Monoclonal Antibody; Recombinant Anti-Argonaute-2 Antibody; Rabbit Monoclonal; AGO2/Argonaute 2/EIF2C2 Antibody; Rabbit MAb; argonaute RISC catalytic component 2; Anti-1110029L17Rik Antibody; Anti-2310051F07Rik Antibody; Anti-Ago2 Antibody; Anti-AI225898 Antibody; Anti-AL022874 Antibody; Anti-AW546247 Antibody; Anti-Eif2c2 Antibody; Anti-ENSMUSG00000072493 Antibody; Anti-Gerp95 Antibody; Anti-Gm10365 Antibody; Anti-KIAA4215 Antibody; Anti-mKIAA4215 Antibody; anti-AGO2 antibody

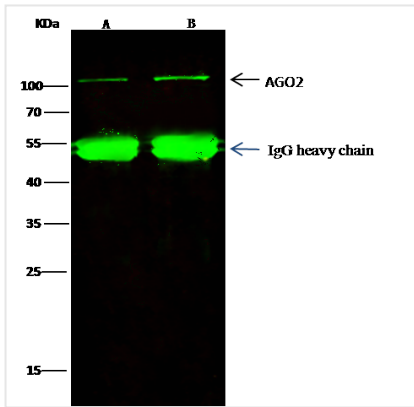
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	036
Specificity	Mouse Argonaute-2
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-AGO2 antibody	IP (Immunoprecipitation), IHC (Immunohistochemistry), ELISA
Antibody Type	Recombinant Antibody
Immunogen	Recombinant Mouse AGO2 protein
Conjugation	Unconjugated
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Mouse AGO2 (rM AGO2).
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.



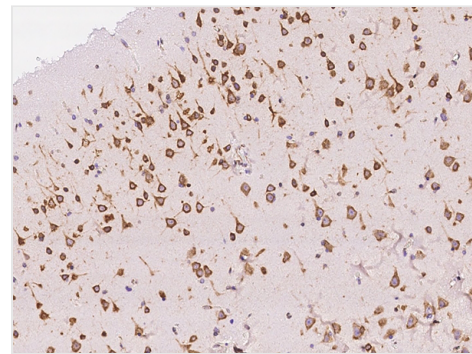
IP (Immunoprecipitation)

AGO2 was immunoprecipitated using: Lane A:0.5 mg Hela Whole Cell Lysate Lane B:0.5 mg MCF-7 Whole Cell Lysate Lane C:0.5 mg HEK293 Whole Cell Lysate 4 μ L anti-AGO2 rabbit monoclonal antibody and 60 μ g of Immulon magnetic beads Protein A/G.Primary antibody:Anti-AGO2 rabbit monoclonal antibody, at 1:100 dilution Secondary antibody:Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution Developed using the ECL technique.Performed under reducing conditions.Predicted band size: 100 kDa Observed band size :100 kDa



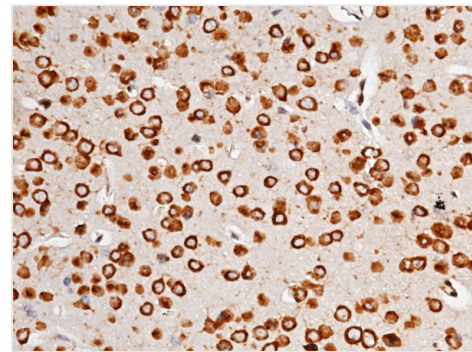
IP (Immunoprecipitation)

AGO2 was immunoprecipitated using: Lane A:0.5 mg K562 Whole Cell Lysate; Lane B:0.5 mg Raw264.7 Whole Cell Lysate; 2 μ L anti-mouse AGO2 rabbit monoclonal antibody and 15 μ L of 50% 50% Protein G agarose. Primary antibody: Anti-mouse AGO2 rabbit monoclonal antibody, at 1:100 dilution. Secondary antibody: Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution. Developed using the odyssey technique. Performed under reducing conditions. Predicted band size: 100 kDa. Observed band size: 100 kDa.



IHC (Immunohistochemisry)

Immunohistochemical staining of AGO2 in human brain with rabbit monoclonal antibody at 1:200 dilution, formalin-fixed paraffin embedded sections.



IHC (Immunohistochemistry)

Immunohistochemical staining of AGO2 in mouse brain with rabbit monoclonal antibody (1:200, formalin-fixed paraffin embedded sections).

ADDITIONAL INFORMATION

Related Product Information for anti-AGO2 antibody

Argonaute 2 (AGO2), also known as Eukaryotic translation initiation factor 2C2 (EIF2C2), belongs to the Argonaute family, AGO subfamily, which is a component of the RNA-induced silencing complex (RISC) and mediates small interfering RNA (siRNA)-directed mRNA cleavage and microRNA translational suppression. AGO2 protein is the catalytic engine of mammalian RNAi. It contains a PIWI domain that is structurally related to RNases H and possibly shares with them a two-metal-ion catalysis mechanism. Human AGO2 was unable to cleave preformed RNA duplexes and exhibited weaker binding affinity for RNA duplexes compared with the single strand RNA. The enzyme exhibited greater RNase H activity in the presence of Mn²⁺ compared with Mg²⁺. Human AGO2 exhibited weaker binding affinities and reduced cleavage activities for antisense RNAs with either a 5'-terminal hydroxyl or abasic nucleotide. In mouse hematopoiesis, AGO2 controls early development of lymphoid and erythroid cells. AGO2 is a highly specialized member of the Argonaute family with an essential nonredundant Slicer-independent function within the mammalian miRNA pathway. AGO2 regulates dFMR1 expression, and the relationship between dFMR1 and AGO2 was defined by their physical interaction and co-regulation of downstream targets. AGO2 and dFMR1 are also connected through a regulatory relationship. AGO2 is a regulator of dFMR1 expression and have clarified an important developmental role for AGO2 in the nervous system and germ line that requires dFMR1 function. In addition, AGO2 is regulated at both the transcriptional and posttranslational level, and also implicate AGO2 and enhanced micro-RNA activity in the tumorigenic progression of breast cancer cell lines.

References	O'Carroll D, et al. (2007) A Slicer-independent role for Argonaute 2 in hematopoiesis and the microRNA pathway. <i>Genes Dev.</i> 21(16): 1999-2004. Pepper AS, et al. (2009) Argonaute2 suppresses Drosophila fragile X expression preventing neurogenesis and oogenesis defects. <i>PLoS One.</i> 4(10): e7618. Lima WF, et al. (2009) Binding and cleavage specificities of human Argonaute2. <i>J Biol Chem.</i> 284(38): 26017-28. Adams BD, et al. (2009) Argonaute-2 expression is regulated by epidermal growth factor receptor and mitogen-activated protein kinase signaling and correlates with a transformed phenotype in breast cancer cells. <i>Endocrinology.</i> 150(1): 14-23. Salvatore V, et al. (2010) Bacterial expression of mouse argonaute 2 for functional and mutational studies. <i>Int J Mol Sci.</i> 11(2): 745-53. Wilson JA, et al. (2011) Human Ago2 is required for efficient microRNA 122 regulation of hepatitis C virus RNA accumulation and translation. <i>J Virol.</i> 85(5): 2342-50.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	219842353
NCBI GeneID	239528
NCBI Accession #	NP_694818.3
NCBI GenBank Nucleotide #	NM_153178.4
UniProt Accession #	Q8CJG0; Q4VAB3; Q571J6; A1A563
Molecular Weight	97,304 Da
NCBI Official Full Name	protein argonaute-2
NCBI Official Synonym Full Names	argonaute RISC catalytic subunit 2
NCBI Official Symbol	Ago2
NCBI Official Synonym Symbols	Eif2c2; Gerp95; Gm10365; AI225898; AL022874; AW546247; mKIAA4215; 1110029L17Rik; 2310051F07Rik; ENSMUSG00000072493
NCBI Protein Information	protein argonaute-2
UniProt Protein Name	Protein argonaute-2
UniProt Gene Name	Ago2
UniProt Synonym Gene Names	Eif2c2; Kiaa4215; Argonaute2; mAgo2; eIF-2C 2; eIF2C 2
UniProt Entry Name	AGO2_MOUSE

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.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/argonaute-2-antibody-clone-036-immunoprecipitation-immunohistochemistry-elisa/257206>