

AGO2 / Argonaute 2 / EIF2C2 Active Protein | AGO2 active protein

Recombinant Human AGO2/Argonaute 2/EIF2C2 Protein (His Tag)(Active)

CATALOG # AAA173551	HOST Baculovirus-Insect Cells
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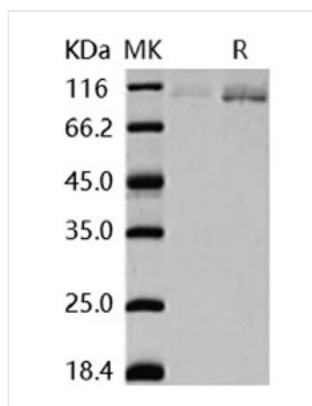
PRODUCT SYNONYMS

AGO2 / Argonaute 2 / EIF2C2; Recombinant Human AGO2/Argonaute 2/EIF2C2 Protein (His Tag)(Active); Argonaute 2; EIF2C2; Q10; AGO2 active protein

PRODUCT SPECIFICATIONS

Host	Baculovirus-Insect Cells
Purity/Purification	>85 % as determined by reducing SDS-PAGE.
Form/Format	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH7.5, 10% glycerol, 0.5mM TCEP, 5% Trehalose, 5% Mannitol, 0.01%Tween 80.
Sequence Positions	Met 1-Ala 859
Species	Human
Tag	N-His
Bio_activity	Human AGO2 can bind Let-7a RNA and cleave target RNA (21nt).
Endotoxin	< 1.0 EU per ug as determined by the LAL method.
Reconstitution	It is recommended that sterile water (70uL) be added to the vial to prepare a stock solution of 0.15mg/mL. Concentration is measured by UV-Vis.
Preparation and Storage	Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8 degree C for 2-7 days. Aliquots of reconstituted samples are stable at < -20 degree C for 3 months. Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for AGO2 active protein	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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	29171734
NCBI GeneID	27161
NCBI Accession #	NP_036286.2
NCBI GenBank Nucleotide #	NM_012154.4
Molecular Weight	Mol_Mass: 99 kDa AP_Mol_Mass: 99 kDa
NCBI Official Full Name	protein argonaute-2 isoform 1
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; hAgo2; eIF-2C 2; eIF2C 2; PPD

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/baculovirus-insect-cells-active-protein/ago2-argonaute-2-eif2c2/173551>