

AGO3 Protein, Human (sf9, His)

Cat. No.:	HY-P74422
Synonyms:	Protein argonaute-3; hAgo3; eIF-2C 3; Argonaute-3; EIF2C3
Species:	Human
Source:	Sf9 insect cells
Accession:	Q9H9G7 (M1-A860)
Gene ID:	192669
Molecular Weight:	Approximately 90 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	AGO3, an integral player in RNA-mediated gene silencing (RNAi), exerts its regulatory role by binding to short RNAs, including microRNAs (miRNAs), and effectively repressing the translation of mRNAs that bear complementary sequences. Its involvement extends to the stabilization of small RNA derivatives, particularly small interfering RNAs (siRNAs), originating from processed RNA polymerase III-transcribed Alu repeats that harbor a DR2 retinoic acid response element (RARE) in stem cells. AGO3 is proposed to orchestrate the subsequent siRNA-dependent degradation of a specific subset of RNA polymerase II-transcribed coding mRNAs by recruiting an mRNA decapping complex, which includes EDC4. While possessing RNA slicer activity, AGO3 exhibits this cleavage function selectively, targeting RNAs with distinct 5'- and 3'-flanking sequences within the region of guide-target complementarity.
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Caution: Product has not been fully validated for medical applications. For research use only.

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