Datasheet for ABIN5711955

AGO2 Protein (AA 517-818) (His tag)

1 Image

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Overview

Quantity:	100 µg
Target:	AGO2
Protein Characteristics:	AA 517-818
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This AGO2 protein is labelled with His tag.
Application:	SDS-PAGE (SDS)

Product Details

Sequence:	LVVVILPGKT PVYAEVKRVG DTVLGMATQC VQMKNVQRTT PQTLSNLCLK INVKLGGVNN ILLPQGRPPV FQQPVIFLGA DVTHPPAGDG KKPSIAAVVG SMDAHPNRYC ATVRVQQHRQ EIIQDLAAMV RELLIQFYKS TRFKPTRIIF YRDGVSEGQF QQVLHHELLA IREACIKLEK DYQPGITFIV VQKRHHTRLF CTDKNERVGK SGNIPAGTTV DTKITHPTEF DFYLCSHAGI QGTSRPSHYH VLWDDNRFSS DELQILTYQL CHTYVRCTRS VSIPAPAYYA HLVAFRARYH LV
Purification:	SDS-PAGE
Purity:	> 90 %

Target Details

Target:	AGO2
Alternative Name:	AGO2 (AGO2 Products)

Target Details

Background:	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 complentary mRNAs that are targets for RISC-mediated gene silencing. The precise mechanism of gene silencing depends on the degree of complentarity between the miRNA or siRNA and its target. Binding of RISC to a perfectly complentary mRNA generally results in silencing due to endonucleolytic cleavage of the mRNA specifically by AGO2. Binding of RISC to a partially complentary 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 elent 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 complentary promoter regions
Molecular Weight:	38.1 kDa
UniProt:	Q9UKV8
Pathways:	Fc-epsilon Receptor Signaling Pathway, Regulatory RNA Pathways, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Ribonucleoprotein Complex Subunit Organization

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

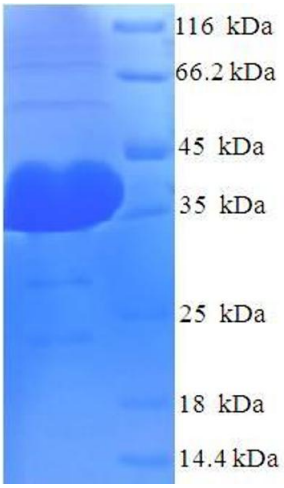
Handling

Format:	Liquid
Concentration:	0.1-2 mg/mL
Buffer:	20 mM Tris-HCl based buffer, pH 8.0

Handling

Storage:	-80 °C,4 °C,-20 °C
Storage Comment:	Store at -20°C, for extended storage, conserve at -20°C or -80°C. Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Images



SDS-PAGE

Image 1.