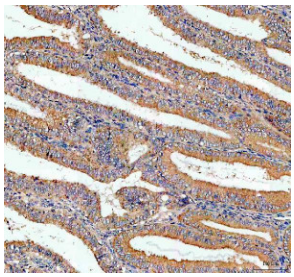
AGO4 Antibody / RNA Silencing Protein Antibody (R32464)

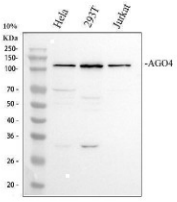
Catalog No.	Formulation	Size
R32464	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9HCK5
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This AGO4 Antibody / RNA Silencing Protein Antibody is available for research use only.



AGO4 Antibody Human Endometrial Cancer IHC. Immunohistochemistry analysis of FFPE human endometrial cancer tissue using AGO4 Antibody / RNA Silencing Protein Antibody. Heat induced antigen retrieval was performed using pH 8 EDTA buffer, and the tissue section was incubated with the primary antibody at 2 ug/ml overnight at 4Â°C. HRP-conjugated secondary antibody and DAB substrate were used for detection. Cytoplasmic staining is observed in tumor cells, supporting the use of AGO4 Antibody / RNA Silencing Protein Antibody for studying RNA silencing pathways, microRNA regulation and cancer-associated gene expression mechanisms.



AGO4 Antibody Human Cell Line WB. Western blot analysis of human cell lysates using AGO4 Antibody / RNA Silencing Protein Antibody. Lane 1: HeLa cells; Lane 2: 293T cells; Lane 3: Jurkat cells. A specific band is detected at approximately 100 kDa, consistent with the expected molecular weight of AGO4 at approximately 97 kDa. These results support the use of AGO4 Antibody / RNA Silencing Protein Antibody for studying Argonaute family proteins, RNA silencing pathways and microRNA-mediated gene regulation.

Description

AGO4 Antibody / RNA Silencing Protein Antibody detects a member of the Argonaute protein family involved in RNA-mediated gene regulation. AGO4, also known as Argonaute 4 and encoded by the EIF2C4 gene, participates in pathways that use small RNA molecules to control gene expression after transcription. Argonaute proteins are core components of RNA-induced silencing complexes (RISC), where they interact with microRNAs and other small regulatory RNAs to guide sequence-specific recognition of target transcripts. Through these mechanisms, AGO4 contributes to RNA silencing, post-transcriptional regulation and cellular control of protein expression.

AGO4 functions as part of the broader RNA interference pathway that allows cells to fine-tune gene activity. Small RNA molecules associate with Argonaute proteins to direct regulatory complexes toward complementary RNA targets, influencing transcript stability and translation. These processes are essential for maintaining normal cellular function, regulating developmental pathways and controlling responses to changing biological conditions. An AGO4 Antibody / RNA Silencing Protein Antibody is useful for researchers studying RNA biology, gene regulation mechanisms and small RNA-associated pathways.

Research involving AGO4 has provided insight into the specialized functions of different Argonaute family members. While multiple Argonaute proteins participate in RNA silencing networks, individual family members may display differences in expression patterns, regulatory interactions and biological functions. Analysis of AGO4 expression helps researchers investigate microRNA pathways, RISC-associated proteins and mechanisms controlling post-transcriptional gene regulation.

AGO4 is also studied in areas related to cancer biology, developmental regulation and cellular adaptation because changes in RNA regulatory networks can influence important cellular processes. Altered microRNA signaling and gene silencing pathways may affect proliferation, differentiation and stress response mechanisms. Understanding AGO4 function contributes to broader studies examining how RNA-based regulation shapes cellular behavior and disease-associated signaling pathways.

NSJ Bioreagents offers AGO4 Antibody / RNA Silencing Protein Antibody products for researchers studying RNA interference, Argonaute proteins and gene expression regulation. These antibodies support applications including Western blot, immunohistochemistry and immunofluorescence analysis of AGO4 expression and localization. AGO4 Antibody / RNA Silencing Protein Antibody provides a valuable tool for investigating RISC complex biology, microRNA-mediated regulation and RNA silencing mechanisms.

Explore additional gene regulation research tools in our Epigenetics Antibodies page, including targets involved in RNA silencing, transcriptional control and epigenetic regulatory pathways.

Application Notes

Optimal dilution of the AGO4 Antibody / RNA Silencing Protein Antibody should be determined by the researcher.

Immunogen

Amino acids KDQTFKVSVQWVSVVSLQLLLEALAGHLNEVPDDSVQALD from the human protein were used as the immunogen for the AGO4 antibody.

Storage

Prior to reconstitution, store at 4oC. After reconstitution, the AGO4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Argonaute 4 antibody, EIF2C4 antibody, Argonaute RISC Component 4 antibody, Eukaryotic Translation Initiation Factor 2C 4 antibody, AGO4 Protein antibody, RNA Interference Protein antibody, RISC Complex Protein antibody

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