3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-EIF2C2/Ago2 (N-terminal)
produced in rabbit, affinity isolated antibody

Catalog Number: **SAB4200275**

Product Description

Anti-EIF2C2/Ago2 (N-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to the N-terminal region of human EIF2C2/Ago2 (GeneID: 27161) conjugated to KLH. The corresponding sequence differs by one amino acid in rat and mouse. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-EIF2C2/Ago2 recognizes human EIF2C2/Ago2. The antibody may be used in several immunochemical techniques including immunoblotting (~97 kDa). Detection of the EIF2C2/Ago2 band by immunoblotting is specifically inhibited with the immunizing peptide.

The Argonaute proteins are evolutionarily conserved between species and have been implicated in both transcriptional and post-transcriptional gene silencing. This family of proteins can be subdivided into the Ago subfamily and the Piwi subfamily. The Ago proteins are ubiquitously expressed and bind to siRNAs or miRNAs to guide gene silencing, whereas the Piwi proteins expression is restricted mostly to the germ line. Argonaute proteins have a molecular weight of about 100 kDa and are characterized by piwi-argonaute-zwille (PAZ) and PIWI domains. In humans, the Ago subfamily consists of hsAgo1–4 (also known as EIF2C1-4). Ago proteins localize to the cytoplasm of somatic cells and are concentrated in cytoplasmic processing bodies.[1-2] Of the four human Ago proteins only one member of this group, Ago2, was found to have endonuclease activity that cleaves the target RNA in RNAi.[3-4] Furthermore, Ago2 was found to be regulated at both the transcriptional and posttranslational levels in human breast cancer cell lines, and was also implicated, together with enhanced micro-RNA activity, in the tumorigenic progression of breast cancer cell lines.[5]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody concentration of 2-4 µg/mL is recommended using lysates of HEK-293T cells over expressing human EIF2C2/Ago2.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Hock, J., and Meister, G., *Genome Biol.*, **9**, 210.1–210.8 (2008).
2. Peters, L., and Meister, G., *Mol. Cell,* **26**, 611–623 (2007).
3. Liu, J., et al., *Science,* **305**, 1437-1441 (2004).
4. Meister, G., et al., *Mol. Cell,* **15**, 185-197 (2004).
5. Adams, B.D., et al., *Endocrinol.,* **150**, 14-23 (2009).

SG,GG,KAA,PHC 08/11-1