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Product Information

Anti-EIF2C1/Ago1
produced in rabbit, affinity isolated antibody

Product Number **SAB4200065**

Product Description

Anti-EIF2C1/Ago1 is produced in rabbit using as the immunogen a synthetic peptide corresponding to a fragment of human EIF2C1/Ago1 (GeneID: 26523) conjugated to KLH. The corresponding sequence is identical in mouse and rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-EIF2C1/Ago1 recognizes human EIF2C1/Ago1. The antibody may be used in several immunochemical techniques including immunoblotting (~100 kDa), immunoprecipitation, and immunofluorescence. Detection of the EIF2C1/Ago1 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. Many organisms encode multiple members of the family, which can be subdivided into the Ago subfamily and the Piwi subfamily. Ago proteins are ubiquitously expressed and bind to siRNAs or miRNAs to guide gene silencing. The Piwi proteins expression is restricted mostly to the germ line.

Argonaute proteins have a molecular mass of ~100 kDa and are characterized by piwi-argonaute-zwille (PAZ) and PIWI domains. In humans, the Ago subfamily consists of four members hsAgo1–4. Ago proteins localize to the cytoplasm of somatic cells and are concentrated in cytoplasmic processing bodies. A member of this group, Ago1 is also known to be associated with Golgi and endoplasmic reticulum. The gene is located on chromosome 1 in a cluster of closely related family members including Ago 3 and Ago 4. Interestingly, this region is often lost in Wilms' tumors, which are hypothesized to be caused by defects in embryonic kidney development that disturb the capacity of metanephrogenic precursor cells to differentiate.

Notably, EIF2C1/Ago1 is expressed in low to medium levels in most tissues, but its expression is particularly high in embryonic kidneys and lungs. EIF2C1 levels are also increased in tumors that lack the Wilm's tumor suppressor gene WT1.[1-3]

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

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at –20 °C. For continuous use, the product may be stored at 2–8 °C for up to one month. For extended storage, freeze in working aliquots at –20 °C. 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 overexpressing hEIF2C1/Ago1.

Immunoprecipitation: a working antibody amount of 5-10 μg is recommended using lysates of HEK-293T cells overexpressing hEIF2C1/Ago1.

Immunofluorescence: a working antibody concentration of 2-5 μg/mL is recommended using paraformaldehyde fixed HEK-293T cells overexpressing hEIF2C1/Ago1.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine 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. Carmell, M.A., et al., *Genes Dev.,* **16**, 2733-2742 (2002).

VS,SG,GG,TD,KAA,PHC,MAM 08/19-1