

Product Information

Anti-ARG1

produced in rabbit, affinity isolated antibody

Catalog Number **SAB4200510**

Product Description

Anti-ARG1 is produced in rabbit using as immunogen a peptide corresponding to the N-terminal region of human ARG1 (GenelD: 383), conjugated to KLH. The corresponding sequence differs by 3 amino acids in rat and by 4 amino acids in mouse. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti- ARG1 recognizes human, mouse and rat ARG1. The antibody may be used in various immunochemical techniques including immunoblotting (~40 kDa) and immunoprecipitation. Detection of the ARG1 band by immunoblotting is specifically inhibited by the immunizing peptide.

Arginase catalyzes the hydrolysis of arginine to ornithine and urea. At least two isoforms of mammalian arginase exist (types I and II), which differ in their tissue distribution, subcellular localization, immunologic cross reactivity and physiologic function. Arginases have been implicated in many disease processes, including vascular diseases, pulmonary diseases, infectious diseases, immune cell dysfunction and cancer. The type I isoform encoded by the ARG1 gene, is a cytosolic enzyme expressed predominantly in the liver as a component of the urea cycle. Inherited deficiency of this enzyme results in argininemia, an autosomal recessive disorder characterized by hyperammonemia. Two transcript variants encoding different isoforms have been found for this gene.¹⁻⁵

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 is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.5-1.0 µg/mL is recommended using whole extracts of rat and mouse liver.

Immunoprecipitation: a working amount of 2.5-5.0 µg is recommended using lysates of HEK-293T cells overexpressing human ARG1.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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3. Di Costanzo, L., et al., *Proc. Natl. Acad. Sci. USA*, **102**, 13058-13063 (2005).
4. Uchino, T., et al., *Hum. Genet.*, **96**, 255-260 (1995).
5. Morris, S.M.Jr., et al., *Curr. Opin. Clin. Nutr. Metab. Care*, **15**, 64-70 (2012).

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