

Product Information

Anti-ARG1 antibody, Mouse monoclonal
clone ARG1-3, purified from hybridoma cell culture

Catalog Number **SAB4200508**

Product Description

Anti-ARG1 (mouse IgG1 isotype) is derived from the hybridoma ARG1-3 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a sequence at the N-terminal region of human ARG1 (GeneID: 383), conjugated to KLH. The corresponding sequence differs by 3 amino acids in mouse ARG1 and by 4 amino acids in rat ARG1. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

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, immunological 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.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

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 at -20°C 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 dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 2-4 µg/mL is recommended using whole extracts of rat or mouse liver.

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

References

1. Morris, S.M.Jr., *Br. J. Pharmacol.*, **157**, 922-930 (2009).
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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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