SONY

Product Data Sheet

APC anti-human Arginase I

Catalog # / Size: 2448530 / 100 tests
2448525 / 25 tests

Clone: 14D2C43

Isotype: Mouse IgG2b, κ

Immunogen: Full length recombinant protein expressed in *E.coli*.

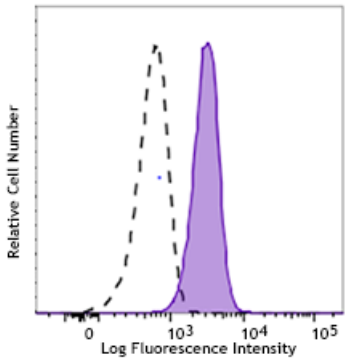
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Workshop Number: V CD40.5

Concentration: Lot-specific

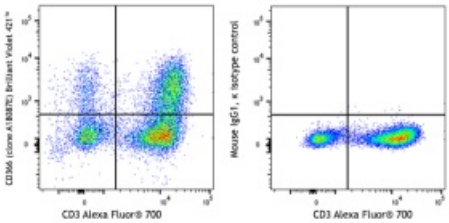


Human peripheral blood was surface stained with CD15 Pacific Blue™ and CD16 FITC, fixed, permeabilized, and then intracellularly stained with Arginase I (clone 14D2C43) APC (filled histogram) or mouse IgG2b, κ APC isotype control (open histogram). Histogram was gated on the neutrophil ($CD15^+CD16^+$) population.

Applications:

Applications: Intracellular Staining for Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.



Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation.

Application References:

1. Kishimoto T, *et al.* 1997. *Leucocyte Typing VI:White Cell Differentiation Antigens.* Garland Publishing Inc.
2. Wang R, *et al.* 2012. *J. Leukoc Biol.* 91:299. PubMed

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Description: Arginase I, also known as ARG1, is a 34.7kD protein expressed by neutrophils and myeloid-derived suppressor cells (MDSCs). There are two isoforms that are differentiated based on their tissue distribution and subcellular localization. Arginase I converts L-arginine into L-ornithine and urea; it is the final enzyme in the urea cycle. While mostly found in the liver, it can also be expressed in cells lacking a comprehensive urea cycle. Also, it contributes to vasodilation and vascular function. Arginase I is also reported to be involved in MDSC mediated suppression of T cell proliferation. Arginase I has been implicated in hyperargininemia (decreased function of arginase I) and Q fever.

Antigen References:

1. Munder M, *et al.* 2005. *Blood* 105:2549.
2. Luckner-Minden C, *et al.* 2010. *JLB.* 87:1125.
3. Holowatz L, *et al.* 2006. *Journal of Physiology* 574:573.
4. Sin YY, *et al.* 2013. *PLoS One* 8:11.
5. Benoit M, *et al.* 2008. *Eur. J. Immunol.* 4:1065.

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