Datasheet for ABIN968128

anti-Liver Arginase antibody (AA 53-207)

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Overview

Quantity:	150 µg
Target:	Liver Arginase (ARG1)
Binding Specificity:	AA 53-207
Reactivity:	Rat, Mouse, Blow Fly
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Liver Arginase antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Human Arginase I aa. 53-207
Clone:	19-Arginase I
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Rat (Rattus), Fruit Fly (Drosophila melanogaster)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Liver Arginase (ARG1)
Alternative Name:	Arginase I (ARG1 Products)
Background:	Arginase converts arginine into urea plus ornithine, the final step in urea synthesis. Two different isoforms (I&II) have been isolated with approximately 60% homology at the nucleotide level. While type II is present in many tissues, Arginase I is expressed exclusively in liver. In cultured macrophages, as well as in vivo, Arginase I is induced with nitric oxide synthase (NOS) and the arginase I transactivator C/EBPbeta in response to lipopolysaccharide. This response occurs in a dose and time-dependent manner. While the mRNA for NOS appears as early as 2h after treatment, mRNA levels for arginase I peak after twelve hours of lipopolysaccharide treatment. Since the synthesis of nitric oxide by NOS requires arginine, the delayed induction of arginase I may be necessary for the regulation of NOS activity. This antibody is routinely tested by western blot analysis.
Molecular Weight:	35 kDa
Pathways:	Cellular Response to Molecule of Bacterial Origin

Application Details

Comment:	Related Products: ABIN968543, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

Handling

Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

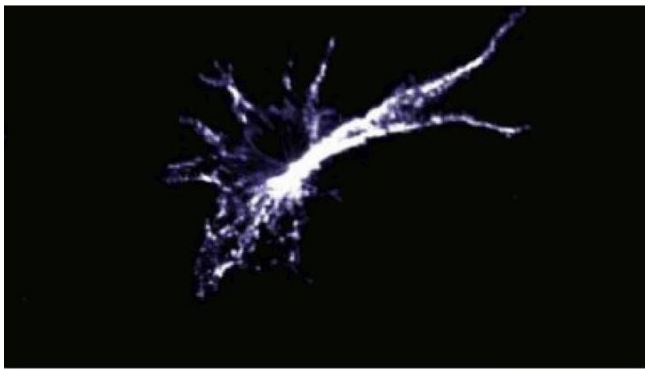
Morrison, Correll: "Activation of the stem cell-derived tyrosine kinase/RON receptor tyrosine kinase by macrophage-stimulating protein results in the induction of arginase activity in murine peritoneal macrophages." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 168, Issue 2, pp. 853-60, (2002) (PubMed).

Chang, Zoghi, Liao, Kuo: "The involvement of tyrosine kinases, cyclic AMP/protein kinase A, and p38 mitogen-activated protein kinase in IL-13-mediated arginase I induction in macrophages: its implications in IL-13-inhibited nitric oxide production." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 165, Issue 4, pp. 2134-41, (2000) (PubMed).

Sonoki, Nagasaki, Gotoh, Takiguchi, Takeya, Matsuzaki, Mori: "Coinduction of nitric-oxide synthase and arginase I in cultured rat peritoneal macrophages and rat tissues in vivo by lipopolysaccharide." in: **The Journal of biological chemistry**, Vol. 272, Issue 6, pp. 3689-93, (1997) (PubMed).

Dizikes, Grody, Kern, Cederbaum: "Isolation of human liver arginase cDNA and demonstration of nonhomology between the two human arginase genes." in: **Biochemical and biophysical research communications**, Vol. 141, Issue 1, pp. 53-9, (1987) (PubMed).

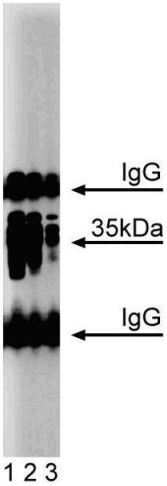
Haraguchi, Takiguchi, Amaya, Kawamoto, Matsuda, Mori: "Molecular cloning and nucleotide sequence of cDNA for human liver arginase." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 84, Issue 2, pp. 412-5, (1987) (PubMed).



Immunofluorescence

Image 1. Immunofluorescence staining of mouse macrophages.

Image 2.



Western Blotting

Image 3. Western blot analysis of Arginase I on a mouse liver lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-arginase I antibody.

