

For Research Use Only

# Arginase-1 Monoclonal antibody

Catalog Number: 66129-1-Ig

Featured Product

125 Publications



## Basic Information

### Catalog Number:

66129-1-Ig

### Size:

150ul, Concentration: 1500 ug/ml by Nanodrop;

### Source:

Mouse

### Isotype:

IgG1

### Immunogen Catalog Number:

AG8810

### GenBank Accession Number:

BC005321

### GeneID (NCBI):

383

### UNIPROT ID:

P05089

### Full Name:

arginase, liver

### Calculated MW:

236aa, 25 kDa; 322aa, 35 kDa

### Observed MW:

36 kDa

### Purification Method:

Protein G purification

### CloneNo.:

5D6D12

### Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:2000-1:5000

IF-P: 1:200-1:800

IF/ICC: 1:400-1:1600

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IF-P, IP, ELISA

### Cited Applications:

WB, IHC, IF

### Species Specificity:

human, mouse, rat, pig, rabbit

### Cited Species:

human, mouse, rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB: pig liver tissue, rat liver tissue, mouse liver tissue, rabbit liver tissue

IP: mouse liver tissue,

IHC: mouse liver tissue, human liver tissue

IF-P: mouse liver tissue,

IF/ICC: HepG2 cells, mouse liver tissue

## Background Information

Arginase-1 (Liver arginase) belongs to the arginase family. ARG1 is a novel immunohistochemical marker of hepatocellular differentiation in fine needle aspiration cytology and a marker of hepatocytes and hepatocellular neoplasms. ARG1 is closely associated with alternative macrophage activation and ARG1 has been shown to protect motor neurons from trophic factor deprivation and allow sensory neurons to overcome neurite outgrowth inhibition by myelin proteins (PMID: 20071539, PMID: 12098359). It can exist as a homotrimer and it has 3 isoforms produced by alternative splicing (PMID: 16141327). Defects in ARG1 are the cause of argininemia (ARGIN). Deletion or TNF-mediated restriction of ARG1 unleashes the production of NO by NOS2, which is critical for pathogen control (PMID: 27117406). Before stroke, ARG1 mainly expressed in neurons in a normal brain (PMID: 23311438). The expression of ARG1 increases in microglia/macrophages and astrocytes early after CNS injuries. ARG1 has been regarded as a marker for beneficial microglia/macrophages and possesses anti-inflammatory and tissue repair properties under various pathological conditions (PMID: 26538310, PMID: 31619589).

## Notable Publications

| Author          | Pubmed ID | Journal           | Application |
|-----------------|-----------|-------------------|-------------|
| Tong Wang       | 34517076  | Food Chem Toxicol | IF          |
| Zhengjiang Qian | 34572339  | Biomedicines      | WB          |
| Yasir Abdul     | 32875455  | Transl Stroke Res | IF          |

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

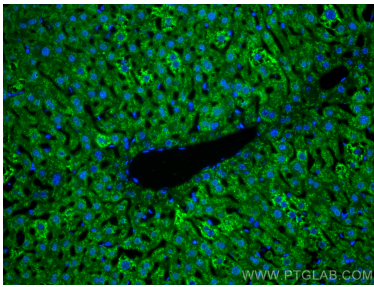
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

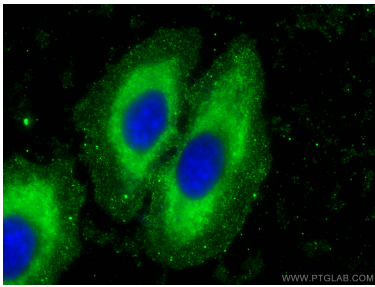
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

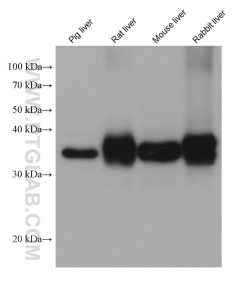
Selected Validation Data



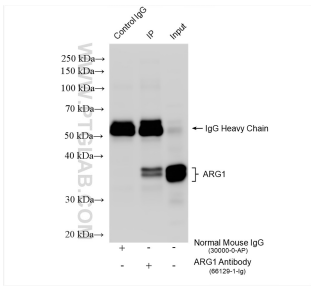
Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse liver tissue using Arginase-1 antibody (66129-1-Ig, Clone: 5D6D12 ) at dilution of 1:400 and Multi-rAb CoraLite® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



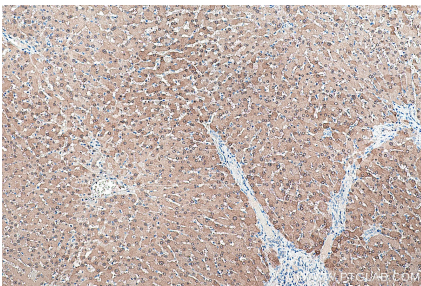
Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using Arginase-1 antibody (66129-1-Ig, Clone: 5D6D12 ) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



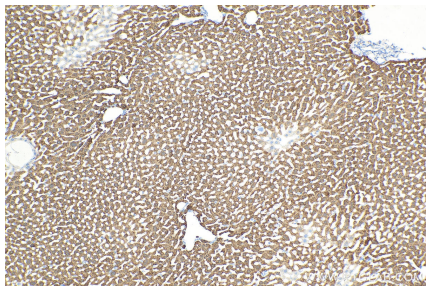
Various lysates were subjected to SDS PAGE followed by western blot with 66129-1-Ig (Arginase-1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



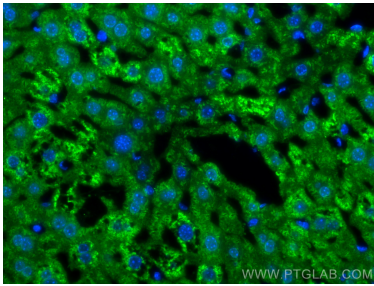
IP result of anti-Arginase-1 (IP:66129-1-Ig, 4ug; Detection:66129-1-Ig 1:10000) with mouse liver tissue lysate 2240 ug.



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 66129-1-Ig (Arginase-1 antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 66129-1-Ig (Arginase-1 antibody) at dilution of 1:4800 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse liver tissue using Arginase-1 antibody (66129-1-Ig, Clone: 5D6D12 ) at dilution of 1:400 and Multi-rAb CoraLite® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).