

For Research Use Only

# Arginase-1 Monoclonal antibody



Catalog Number: 66129-1-Ig

Featured Product

13 Publications

## Basic Information

### Catalog Number:

66129-1-Ig

### Size:

150ul, Concentration: 1000 µg/ml by Bradford method using BSA as the standard;

### Source:

Mouse

### Isotype:

IgG1

### Immunogen Catalog Number:

AG8810

### GenBank Accession Number:

BC005321

### GeneID (NCBI):

383

### Full Name:

arginase, liver

### Calculated MW:

236aa, 25 kDa; 322aa, 35 kDa

### Observed MW:

36 kDa

### Purification Method:

Protein A purification

### CloneNo.:

5D6D12

### Recommended Dilutions:

WB 1:1000-1:10000

IP 0.5-4.0 µg for IP and 1:500-1:2000 for WB

IHC 1:200-1:1000

## Applications

### Tested Applications:

IHC, IP, WB, ELISA

### Cited Applications:

IF, WB

### Species Specificity:

human, pig, rat, mouse

### 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: rat liver tissue, RAW 264.7 cells, mouse liver tissue, pig liver tissue

IP: rat liver tissue,

IHC: human liver cancer tissue, human 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). ARG1 mainly expresses in neurons in a normal brain. 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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

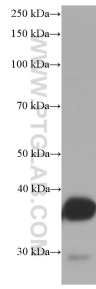
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

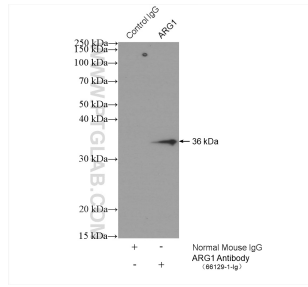
E: proteintech@ptglab.com  
W: ptglab.com

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

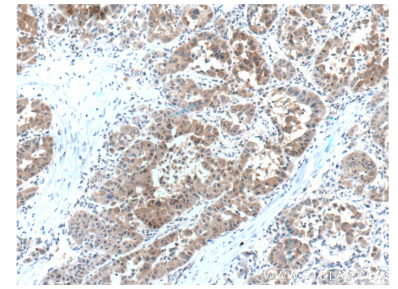
## Selected Validation Data



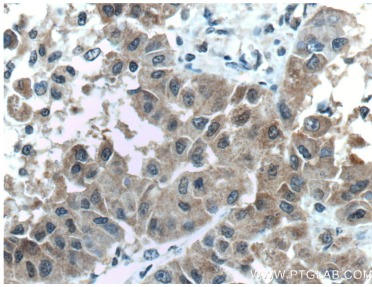
rat liver tissue were subjected to SDS PAGE followed by western blot with 66129-1-Ig (ARG1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



IP result of anti-ARG1 (IP:66129-1-Ig, 5ug; Detection:66129-1-Ig 1:1000) with rat liver tissue lysate 5520 ug.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66129-1-Ig (ARG1 Antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 66129-1-Ig (ARG1 Antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).