For Research Use Only

Arginase-1 Monoclonal antibody

Catalog Number:66129-1-Ig Featured Product 63 Publications

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Basic Information

Catalog Number:
66129-1-Ig

Size:
1500 μg/ml

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 A purification

CloneNo.:
5D6D12

Recommended Dilutions:
WB 1:1000-1:10000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:2000-1:5000
IF 1:400-1:1600

Applications

Tested Applications:
WB, IP, IF/ICC,IF-P, IHC, ELISA

Cited Applications:
WB, IF, IHC

Species Specificity:
human, pig, rat, mouse

Cited Species:
human, rat, mouse

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, pig liver tissue, mouse liver tissue

IP : rat liver tissue,

IHC : mouse liver tissue,

IF : 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 protectmotor neurons from trophic factor deprivation and allow sensory neurons to overcome neurite outgrowth inhibition by myelin proteins (PMID: 20071539, PMID:12098359). It can exsit 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 antiinflammatory and tissue repair properties under various pathological conditions (PMID: 26538310, PMID: 31619589).

Notable Publications

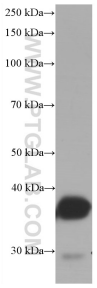
Author	Pubmed ID	Journal	Application
Tong Wang	34517076	Food Chem Toxicol	IF
Zhengjiang Qian	34572339	Biomedicines	WB
Yasir Abdul	32875455	Transl Stroke Res	IF

Storage

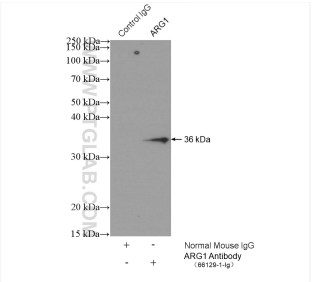
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

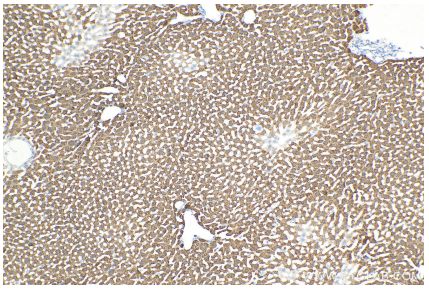
Selected Validation Data



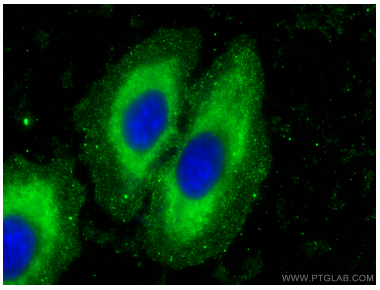
rat liver tissue were subjected to SDS PAGE followed by western blot with 66129-1-Ig (ARG1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



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



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 (-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).