For Research Use Only

Arginase-1 Polyclonal antibody

Catalog Number:16001-1-AP 290 Publications

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Basic Information

Catalog Number:
16001-1-AP

Size:
150ul , Concentration: 800 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG8595

GenBank Accession Number:
BC005321

GeneID (NCBI):
383

UNIPROT ID:
P05089

Full Name:
arginase, liver

Calculated MW:
236aa,25 kDa; 322aa,35 kDa

Observed MW:
35-36 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:5000-1:50000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF 1:50-1:500

Applications

Tested Applications:
IF, IHC, IP, WB, ELISA

Cited Applications:
FC, IF, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, mouse, pig

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 : mouse liver tissue, rat liver tissue

IP : mouse liver tissue,

IHC : human liver cancer tissue,

IF : human liver cancer 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). 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 antiinflammatory and tissue repair properties under various pathological conditions (PMID: 26538310, PMID: 31619589).

Notable Publications

Author	Pubmed ID	Journal	Application
Shiao Tong	36248799	Front Immunol	WB
Meili Wu	30266587	Brain Res Bull	WB
Yifei Zhou	36242920	Biochem Biophys Res Commun	

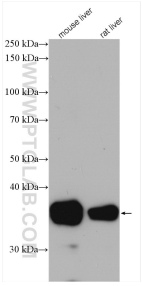
Storage

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

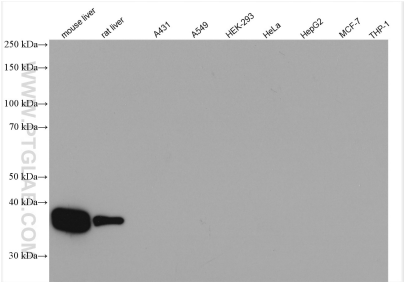
***** 20ul sizes contain 0.1%BSA**

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

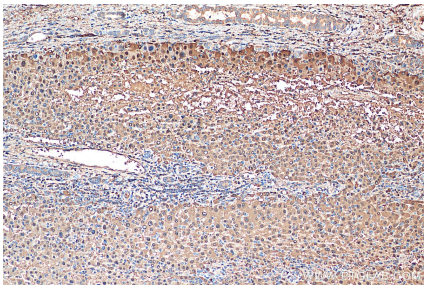
Selected Validation Data



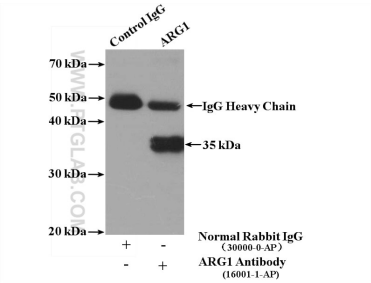
Various lysates were subjected to SDS PAGE followed by western blot with 16001-1-AP (ARG1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



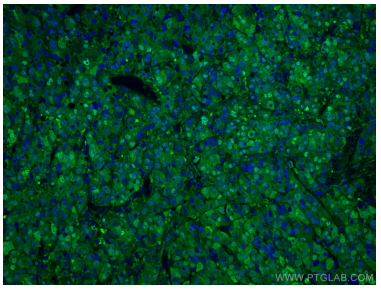
Various lysates were subjected to SDS PAGE followed by western blot with 16001-1-AP (ARG1 antibody) at dilution of 1:30000 incubated at room temperature for 1.5 hours; mouse liver tissue and rat liver tissue are positive, other cells express no or low ARG1 under normal condition.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 16001-1-AP (Arginase-1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-Arginase-1 (IP:16001-1-AP, 4ug; Detection:16001-1-AP 1:700) with mouse liver tissue lysate 5200ug.



Immunofluorescent analysis of (4% PFA) fixed human liver cancer tissue using Arginase-1 antibody (16001-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).