

For Research Use Only

Arginase-1 Recombinant antibody

Catalog Number: 82975-1-RR



Basic Information

Catalog Number: 82975-1-RR	GenBank Accession Number: BC005321	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 383	CloneNo.: 4M7
Source: Rabbit	UNIPROT ID: P05089	Recommended Dilutions: WB 1:5000-1:50000
Isotype: IgG	Full Name: arginase, liver	IHC 1:500-1:2000
Immunogen Catalog Number: AG8595	Calculated MW: 236aa,25 kDa; 322aa,35 kDa	IF-P 1:500-1:2000
	Observed MW: 35-36 kDa	IF/ICC 1:250-1:1000

Applications

Tested Applications: WB, IHC, IF/ICC, IF-P, ELISA	Positive Controls:
Species Specificity: human, mouse, rat	WB : mouse liver tissue, rat liver tissue
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	IHC : mouse liver tissue,
	IF-P : mouse liver tissue,
	IF/ICC : HepG2 cells,

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

Storage

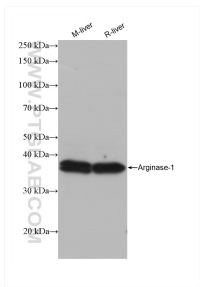
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

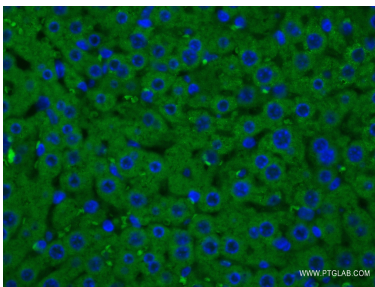
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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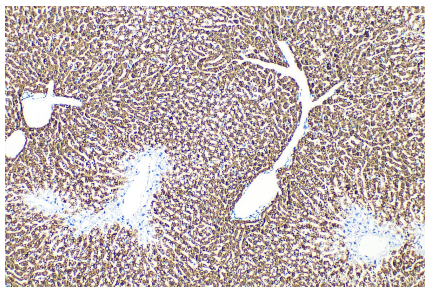
Selected Validation Data



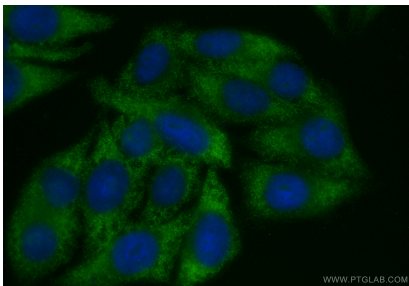
Various lysates were subjected to SDS PAGE followed by western blot with 82975-1-RR (Arginase-1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



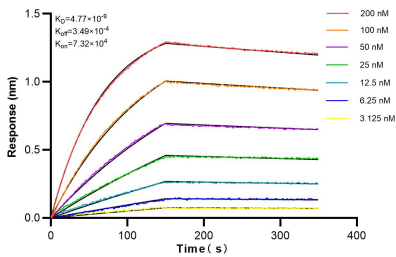
Immunofluorescent analysis of (4% PFA) fixed mouse liver tissue using Arginase-1 antibody (82975-1-RR, Clone: 4M7) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 82975-1-RR (Arginase-1 antibody) at dilution of 1:1000 (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 (82975-1-RR, Clone: 4M7) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Biolayer interferometry (BLI) kinetic assays of 82975-1-RR against Human Arginase-1 were performed. The affinity constant is 4.77 nM.