

For Research Use Only

Arginase-1 Recombinant monoclonal antibody, PBS Only

Catalog Number: 82975-1-PBS



Basic Information

Catalog Number: 82975-1-PBS	GenBank Accession Number: BC005321	Purification Method: Protein A purification
Source: Rabbit	GeneID (NCBI): 383	CloneNo.: 4M7
Isotype: IgG	UNIPROT ID: P05089	
Immunogen Catalog Number: AG8595	Full Name: arginase, liver	
	Calculated MW: 236aa, 25 kDa; 322aa, 35 kDa	
	Observed MW: 35-36 kDa	

Applications

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

Species Specificity:
human, mouse, rat

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 -80°C.
The product is shipped with ice packs. Upon receipt, store it immediately at -80°C

Storage Buffer:
PBS only, pH7.3

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

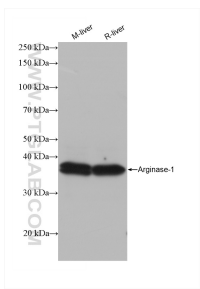
T: 4006900926

E: Proteintech-CN@ptglab.com

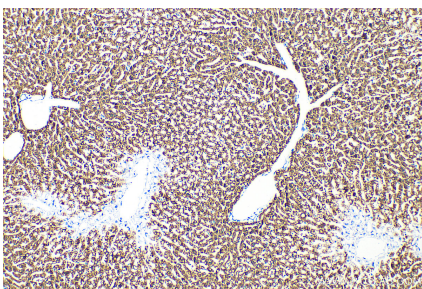
W: ptgcn.com

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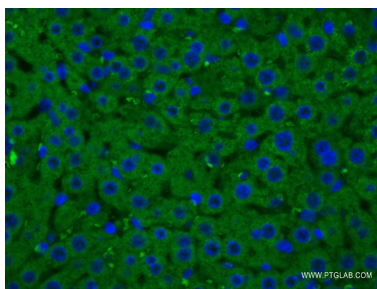
Selected Validation Data



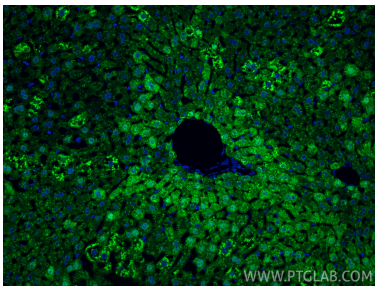
Various lysates were subjected to SDS PAGE followed by western blot with 82975-1-RR (Arginase-1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 82975-1-PBS in a different storage buffer formulation.



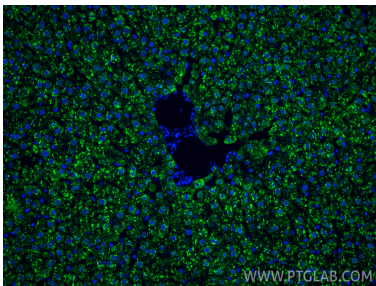
Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 82975-1-RR (Arginase-1 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82975-1-PBS in a different storage buffer formulation.



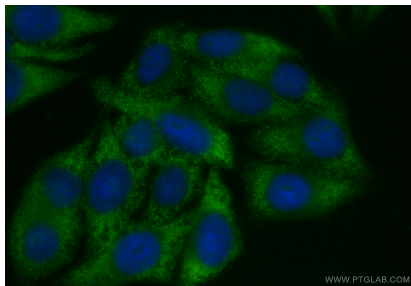
Immunofluorescent analysis of (4% PFA) fixed mouse liver tissue using Arginase-1 antibody (82975-1-RR, Clone: 4M7) at dilution of 1:1000 and Coralite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 82975-1-PBS in a different storage buffer formulation.



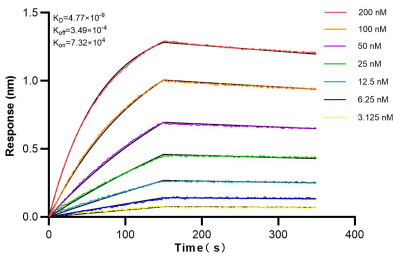
Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse liver tissue using Arginase-1 antibody (82975-1-RR, Clone: 4M7) at dilution of 1:200 and Coralite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82975-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded rat liver tissue using Arginase-1 antibody (82975-1-RR, Clone: 4M7) at dilution of 1:200 and Coralite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82975-1-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 82975-1-PBS in a different storage buffer formulation.



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