Anti-Liver Arginase Antibody [PSH09-78]

HA723143

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Tissue
Molecular Wt:	Predicted band size: 35 kDa
Clone number:	PSH09-78

Description: Key element of the urea cycle converting L-arginine to urea and L-ornithine, which is further metabolized into metabolites proline and polyamides that drive collagen synthesis and bioenergetic pathways critical for cell proliferation, respectively; the urea cycle takes place primarily in the liver and, to a lesser extent, in the kidneys.Defects in ARG1 are the cause of argininemia (ARGIN); also known as hyperargininemia. Argininemia is a rare autosomal recessive disorder of the urea cycle. Arginine is elevated in the blood and cerebrospinal fluid, and periodic hyperammonemia occurs. Clinical manifestations include developmental delay, seizures, mental retardation, hypotonia, ataxia, progressive spastic quadriplegia.

Immunogen: Recombinant protein within human Liver Arginase aa 1-322/322

Positive control: Mouse liver tissue lysate, rat liver tissue lysate, human liver tissue, mouse liver tissue, rat liver tissue.

Subcellular location: Cytoplasm , Cytoplasmic granule

Database links: SwissProt: P05089 Human | Q61176 Mouse | P07824 Rat

Recommended Dilutions:

WB	1:10,000
IHC-P	1:2,000-1:15,000
IF-Tissue	1:500-1:3,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

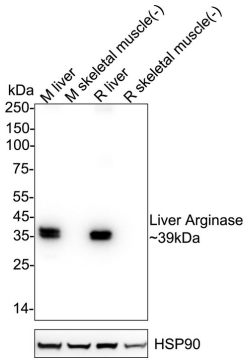

Fig1: Western blot analysis of Liver Arginase on different lysates with Rabbit anti-Liver Arginase antibody (HA723143) at 1/10,000 dilution.

Lane 1: mouse liver tissue lysate (40 µg/Lane)
Lane 2: mouse skeletal muscle tissue lysate (negative) (40 µg/Lane)
Lane 3: rat liver tissue lysate (40 µg/Lane)
Lane 4: rat skeletal muscle tissue lysate (negative) (40 µg/Lane)

Predicted band size: 35 kDa
Observed band size: 39 kDa

Exposure time: 2 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA723143) at 1/10,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

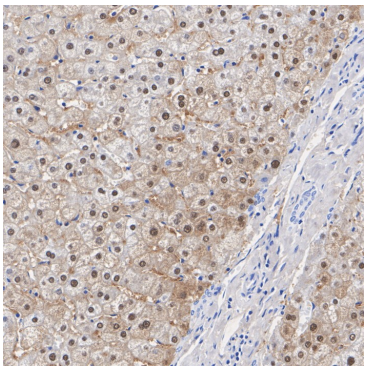

Fig2: Immunohistochemical analysis of paraffin-embedded human liver tissue with Rabbit anti-Liver Arginase antibody (HA723143) at 1/15,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA723143) at 1/15,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

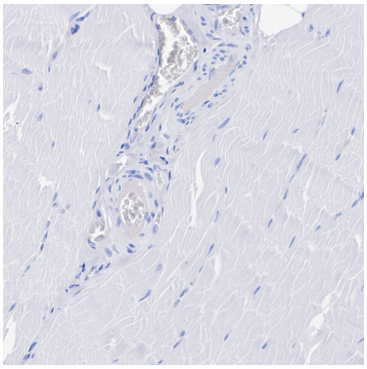

Fig3: Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue (negative) with Rabbit anti-Liver Arginase antibody (HA723143) at 1/15,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA723143) at 1/15,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

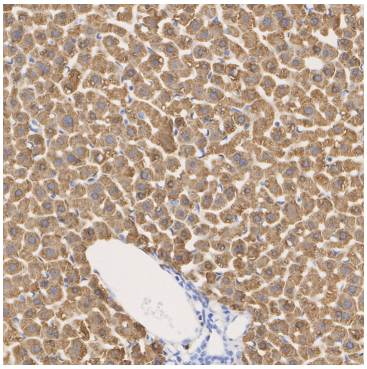

Fig4: Immunohistochemical analysis of paraffin-embedded mouse liver tissue with Rabbit anti-Liver Arginase antibody (HA723143) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA723143) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

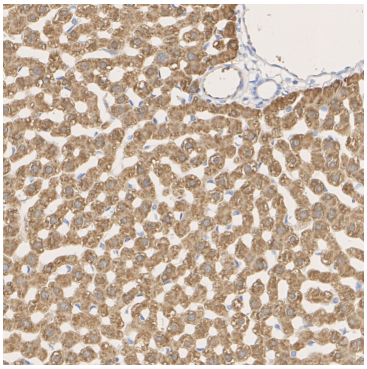

Fig5: Immunohistochemical analysis of paraffin-embedded rat liver tissue with Rabbit anti-Liver Arginase antibody (HA723143) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA723143) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Crombez EA, Cederbaum SD. Hyperargininemia due to liver arginase deficiency. Mol Genet Metab. 2005 Mar;84(3):243-51. doi: 10.1016/j.ymgme.2004.11.004. Epub 2004 Dec 19. PMID: 15694174.
2. Maharem TM, Zahran WE, Hassan RE, Abdel Fattah MM. Unique properties of arginase purified from camel liver cytosol. Int J Biol Macromol. 2018 Mar;108:88-97. doi: 10.1016/j.ijbiomac.2017.11.141. Epub 2017 Nov 24. PMID: 29180053.