10320 Camino Santa Fe, Suite G
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# Anti-liver Arginase Antibody
**Catalog # ABO12753**

## Specification

### Anti-liver Arginase Antibody - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | P05089 |
| Host | **Rabbit** |
| Reactivity | **Human, Rat** |
| Clonality | **Polyclonal** |
| Format | **Lyophilized** |

**Description**
Rabbit IgG polyclonal antibody for Arginase-1(ARG1) detection. Tested with WB in Human;Rat.<br>

**Reconstitution**
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

### Anti-liver Arginase Antibody - Additional Information

**Gene ID** 383

**Other Names**
Arginase-1, 3.5.3.1, Liver-type arginase, Type I arginase, ARG1

**Calculated MW**
34735 MW KDa

**Application Details**
Western blot, 0.1-0.5 µg/ml, Rat, Human<br>

**Subcellular Localization**
Cytoplasm .

**Protein Name**
Arginase-1

**Contents**
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

**Immunogen**
A synthetic peptide corresponding to a sequence at the N-terminus of human liver Arginase (64-92aa FQIVKNPRSVGKASEQLAGKVAEVKKNGR), different from the related mouse sequence by four amino acids, and from the related rat sequence by five amino acids.

**Purification**
Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

Storage

**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

**Sequence Similarities**
Belongs to the arginase family.

## Anti-liver Arginase Antibody - Protein Information

**Name** ARG1

**Function**
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.

**Cellular Location**
Cytoplasm. Cytoplasmic granule. Note=Localized in azurophil granules of neutrophils (PubMed:15546957)

**Tissue Location**
Within the immune system initially reported to be selectively expressed in granulocytes (polymorphonuclear leukocytes [PMNs]) (PubMed:15546957). Also detected in macrophages mycobacterial granulomas (PubMed:23749634). Expressed in group2 innate lymphoid cells (ILC2s) during lung disease (PubMed:27043409)

## Anti-liver Arginase Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## Anti-liver Arginase Antibody - Images

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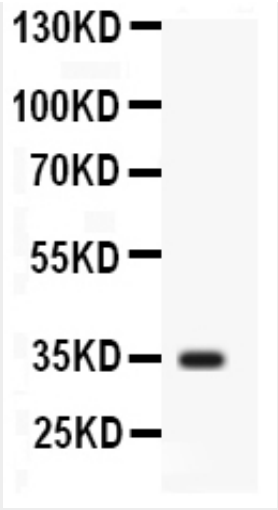


Anti- Liver Arginase antibody, ABO12753, Western blottingAll lanes: Anti Liver Arginase (ABO12753) at 0.5ug/mlWB: Rat Liver Tissue Lysate at 50ugPredicted bind size: 35KDObserved bind size: 35KD

**Anti-liver Arginase Antibody - Background**

ARG1 (arginase, live) is a cytosolic enzyme and expressed predominantly in the liver as a component of the urea cycle. The isoform encoded by ARG1, referred to as the liver, or A-I, isoform, contributes 98% of the arginase activity in liver but is also present in red cells. Using a rat liver ARG1 cDNA clone to probe a human liver cDNA library, Haraguchi et al. (1987) isolated and characterized a cDNA corresponding to the ARG1 gene. The ARG1 gene is mapped on 6q23.2 and the arginase gene contains 8 exons. By immunologic studies, 90% of the arginase in red blood cell and liver was precipitated by the antibody, whereas only 50% of the arginase in kidney, brain, and the gastrointestinal tract reacted with it. Inherited deficiency of this enzyme results in argininemia, an autosomal recessive disorder characterized by hyperammonemia. Two transcript variants encoding different isoforms have been found for this gene.