

## Anti-Arginase 1/ARG1 Antibody (5R257)

### Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	5R257
Purification:	Protein A

### Applications

1. Immunochemical staining of human ARG1 in human liver with rabbit monoclonal antibody (1:1000, formalin-fixed paraffin embedded sections).
  2. Immunochemical staining of human ARG1 in human kidney with rabbit monoclonal antibody (1:1000, formalin-fixed paraffin embedded sections).
  3. Anti-ARG1 rabbit monoclonal antibody at 1:500 dilution.
    - Lane A: HepG2 Whole Cell lysate.
    - Lysates/proteins at 30 µg per lane.
    - Secondary
    - Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution.
    - Developed using the Odyssey technique.
    - Performed under reducing conditions.
- Verified Activity:
- Predicted band size:35 kDa.
  - Observed band size:40 kDa.
4. Flow cytometric analysis of Human ARG1 expression on HepG2 cells. The cells were treated according to manufacturer's manual (BD Pharmingen™ Cat. No. 554714), stained with purified anti-Human ARG1, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.
  5. Immunofluorescence staining of ARG1 in Hela cells. Cells were fixed with 4% PFA, permeabilized with 0.3% Triton X-100 in PBS, blocked with 10% serum, and incubated with rabbit anti-human ARG1 monoclonal antibody (dilution ratio 1:60) at 4°C overnight. Then cells were stained with the Alexa Fluor® 488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue).

Application: ELISA,FCM,ICC/IF,IHC-P,WB

Recommended WB: 1:500-1:1000; ELISA: 1:25000-1:50000; IHC-P: 1:500-1:2500; ICC-IF: 1:20-1:100; FCM: 1:100-1:500

### Properties

Stability & Storage: Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: Recombinant Protein: Human ARG1 / Arginase 1 protein (TMPY-02168)

Antigen Species: Human

Synonyms: arginase 1;ARG1

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### Research Background

Arginase is the focal enzyme of the urea cycle hydrolysing L-arginine to urea and L-ornithine. Emerging studies have identified arginase in the vasculature and have implicated this enzyme in the regulation of nitric oxide (NO) synthesis and the development of vascular disease. Arginase also redirects the metabolism of L-arginine to L-ornithine and the formation of polyamines and L-proline, which are essential for smooth muscle cell growth and collagen synthesis. Arginase is encoded by two recently discovered genes (Arginase I and Arginase II). In most mammals, Arginase 1 (ARG1) also known as Arginase, liver, which functions in the urea cycle, and is located primarily in the cytoplasm of the liver. The second isozyme, Arginase II, has been implicated in the regulation of the arginine/ornithine concentrations in the cell. It is located in mitochondria of several tissues in the body, with most abundance in the kidney and prostate. It may be found at lower levels in macrophages, lactating mammary glands, and brain.

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