SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-Arginase II antibody

Catalog Number: SL11397R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Arginase II
Immunogen:	KLH conjugated synthetic peptide derived from human Arginase II: 181-290/354
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 ICC/IF=1:100-500 IF=1:100-500 Flow-Cyt=1ug/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human, Mouse, (predicted: Rat, Chicken, Dog, Cow, Rabbit)
Predicted MW.:	36kDa
Subcellular Location:	cytoplasmic
Background:	Arginase I (also designated liver-type arginase), which is expressed almost exclusively in the liver, catalyzes the conversion of arginine to ornithine and urea (1). The human arginase I gene, which maps to chromosome 6q23, encodes a 322 amino acid protein. Arginase I exists as a homotrimeric protein and contains a binuclear manganese cluster (2-4). Arginase II catalyzes the same reaction as arginase I, but differs in its tissue specificity and subcellular location (5,6). Specifically, arginase II localizes to the mitochondria (5,6). Arginase II is expressed in non-hepatic tissues, with the highest levels of expression in the kidneys, but, unlike arginase I, is not

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	expressed in liver (5,6). The human arginase II gene, which maps to chromosome 14q24.1, encodes a 354 amino acid protein (3,5-7). In addition, arginase II contains a putative amino-terminal mitochondrial localization sequence (5,6). **Function:** May play a role in the regulation of extra-urea cycle arginine metabolism and also in down-regulation of nitric oxide synthesis. Extrahepatic arginase functions to regulate L-arginine bioavailability to NO synthase. Since NO synthase is found in the penile corpus cavernosum smooth muscle, the clitoral corpus cavernosum and the vagina, arginase II plays a role in both male and female sexual arousal. It is therefore a potential target for the treatment of male and female sexual arousal disorders. **Subunit:** Homotrimer. **Subcellular Location:** Cytoplasm. **Tissue Specificity:** Expressed most strongly in kidney and prostate, much less strongly in the brain, skeletal muscle, placenta, lung, mammary gland, macrophage, uterus, testis and gut, but apparently not in the liver, heart and pancreas. **Similarity:** Belongs to the arginase family. **Database links:** **Entrez Gene:** 384 Human **Entrez Gene:** 11847 Mouse **Entrez Gene:** 29215 Rat Omim: 107830 Human **SwissProt:** P78540 Human **SwissProt:** O08691 Mouse **SwissProt:** O08701 Rat **Unigene:** 226007 Human **Unigene:** 723133 Human **Unigene:** 3506 Mouse **Unigene:** 11055 Rat

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[VALIDATION IMAGES]

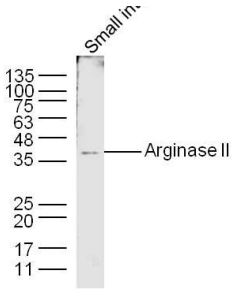


Figure 1. Sample: Small intestine (Mouse) Lysate at 40 ug Primary: Anti-Arginase II (SL11397R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 36 kD Observed band size: 36 kD

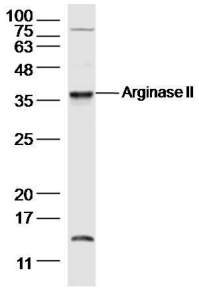


Figure 2. Sample: DU145(human)cell Lysate at 30 ug Primary: Anti-Arginase II (SL11397R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 36kD Observed band size: 36 kD

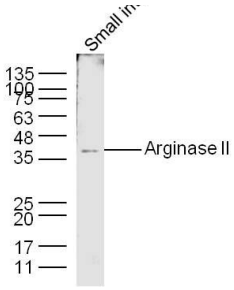


Figure 3. Sample: Small intestine (Mouse) Lysate at 40 ug Primary: Anti-Arginase II (SL11397R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 36 kD Observed band size: 36 kD

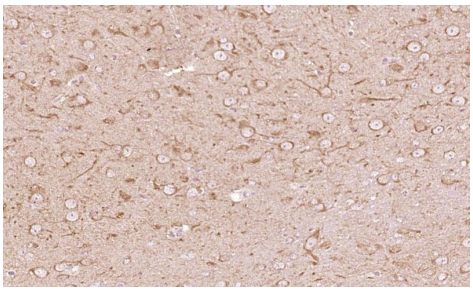


Figure 4. Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Arginase II) Polyclonal Antibody, Unconjugated (SL11397R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

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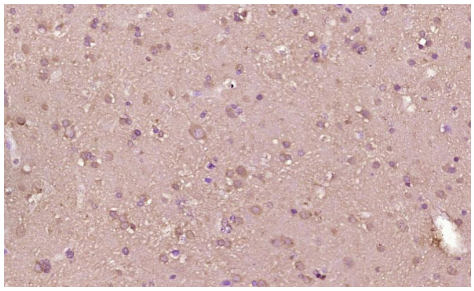


Figure 5. Paraformaldehyde-fixed, paraffin embedded (Human brain glioma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Arginase II) Polyclonal Antibody, Unconjugated (SL11397R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

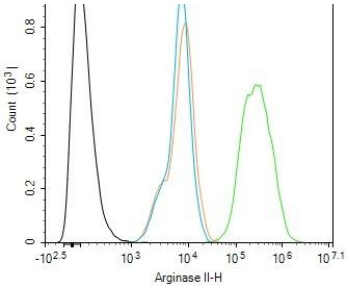


Figure 6. Blank control (black line) :HepG2. Primary Antibody (green line): Rabbit Anti-Arginase II antibody (SL11397R) Dilution:1ug/Test; Secondary Antibody (white blue line) : Goat anti-rabbit IgG-BF488 Dilution: 0.5ug/Test. Isotype control (orange line) : Normal Rabbit IgG Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature.Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed

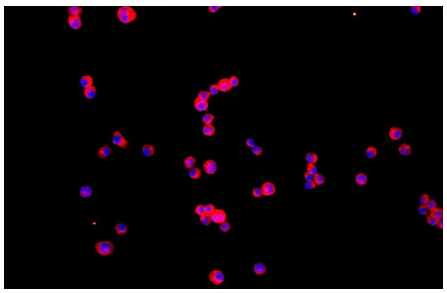


Figure 7. Tissue/cell: human MCF-7 cells;4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-Arginase II Polyclonal Antibody, Unconjugated(SL11397R) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(SL0295G-Cy3)used at 1:200 dilution for 40 minutes at 37°C. DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei

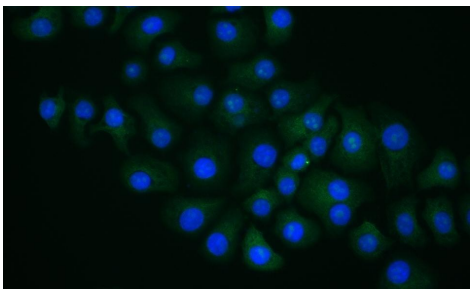


Figure 8. HepG2 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (Arginase II) polyclonal Antibody, Unconjugated (SL11397R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei

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