

KD-Validated Anti-Arg2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI2376

Product Information

Application	WB, FC, ICC
Primary Accession	P78540
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB655
Calculated MW	38578
Gene Name	ARG2
Aliases	ARG2; Arginase 2; Arginase-2, Mitochondrial; Kidney-Type Arginase; Non-Hepatic Arginase; Arginase, Type II; Type II Arginase; Arginase II; EC 3.5.3.1; L-Arginine Amidinohydrolase; L-Arginine Ureahydrolase; Nonhepatic Arginase; Kidney Arginase; EC 3.5.3
Immunogen	A synthesized peptide derived from human Arg2

Additional Information

Gene ID	384
Other Names	Arginase-2, mitochondrial, 3.5.3.1, Arginase II, Kidney-type arginase, Non-hepatic arginase, Type II arginase, ARG2

Protein Information

Name	ARG2
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 nitric oxid synthase (NOS). Arginine metabolism is a critical regulator of innate and adaptive immune responses. Seems to be involved in negative regulation of the survival capacity of activated CD4(+) and CD8(+) T cells (PubMed:27745970). May suppress inflammation- related signaling in asthmatic airway epithelium (PubMed:27214549). May contribute to the immune evasion of H.pylori by restricting M1 macrophage activation and polyamine metabolism (By similarity). In fetal dendritic cells may play a role in promoting immune suppression and T cell TNF production during gestation (PubMed:28614294). Regulates RPS6KB1 signaling, which promotes endothelial cell senescence and inflammation and implicates NOS3/eNOS dysfunction (PubMed:22928666). Can inhibit endothelial autophagy independently of its enzymatic activity implicating mTORC2 signaling (PubMed:25484082). Involved in vascular smooth muscle cell senescence and apoptosis independently of its enzymatic activity (PubMed:23832324). Since NOS is found in the penile corpus

cavernosum smooth muscle, the clitoral corpus cavernosum and the vagina, arginase-2 plays a role in both male and female sexual arousal (PubMed:[12859189](#)).

Cellular Location

Mitochondrion.

Tissue Location

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. Expressed in activated T cells (PubMed:27745970).

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