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ARG2 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP12496b

Specification

ARG2 Antibody (C-term) Blocking peptide - Product Information

Primary Accession P78540

ARG2 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 384

Other Names
Arginase-2, mitochondrial, Kidney-type arginase, Non-hepatic arginase, Type II arginase, ARG2

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ARG2 Antibody (C-term) Blocking peptide - 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-alpha 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).

ARG2 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

ARG2 Antibody (C-term) Blocking peptide - Images

ARG2 Antibody (C-term) Blocking peptide - Background

Arginase catalyzes the hydrolysis of arginine toornithine and urea. At least two isoforms of mammalian arginaseexists (types I and II) which differ in their tissue distribution,subcellular localization, immunologic crossreactivity andphysiologic function. The type II isoform encoded by this gene, islocated in the mitochondria and expressed in extra-hepatic tissues,especially kidney. The physiologic role of this isoform is poorlyunderstood; it is thought to play a role in nitric oxide andpolyamine metabolism. Transcript variants of the type II generesulting from the use of alternative polyadenylation sites havebeen described.

ARG2 Antibody (C-term) Blocking peptide - References

Warnken, M., et al. Naunyn Schmiedebergs Arch. Pharmacol. 381(4):297-304(2010)Rodrigues Pereira, N., et al. Blood Cells Mol. Dis. 44(3):164-168(2010)Vonk, J.M., et al. Pharmacogenet. Genomics 20(3):179-186(2010)Bjelakovic, L., et al. J Basic Clin Physiol Pharmacol 21(2):187-200(2010)Gannon, P.O., et al. PLoS ONE 5 (8), E12107 (2010) :