

ARG2 recombinant antibody

ARG2 Recombinant Monoclonal Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA278985	HEK293F Cell	Human	Flow Cytometry, Functional Assay, Immunofluorescence, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

ARG2; Monoclonal Recombinant Antibody; ARG2 Recombinant Monoclonal Antibody; Arginase-2; mitochondrial (EC 3.5.3.1)(Arginase II)(Kidney-type arginase)(Non-hepatic arginase)(Type II arginase); ARG2 recombinant antibody

PRODUCT SPECIFICATIONS

Host	HEK293F Cell
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	9A4
Purity/Purification	Affinity purified
Form/Format	Liquid; PBS, 150mM NaCl, 0.02% sodium azide, 50% glycerol, pH 7.4.
Applicable Applications for ARG2 recombinant antibody	FCM/FACS (Flow Cytometry), IF (Immunofluorescence), IHC (Immunohistochemistry), ELISA
Immunogen Species	Human
Immunogen	A synthesized peptide derived from Human ARG2
Conjugation	Non-conjugated
Research Area	Metabolism; Signal transduction
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.

IMAGES



FCM/FACS (Flow Cytometry)

Overlay Peak curve showing PC3 cells stained with AAA278985 (red line) at 1:100. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1*10⁶cells) for 45min at 4?. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4?. Control antibody (green line) was rabbit IgG (1ug/1*10⁶cells) used under the same conditions. Acquisition of >10,000 events was performed.



IF (Immunofluorescence)

Immunofluorescence staining of PC-3 cell with AAA278985 at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 559-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IHC (Immunohistochemistry)

IHC image of AAA278985 diluted at 1:100 and staining in paraffin-embedded human prostate cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.

ADDITIONAL INFORMATION

Related Product Information for ARG2 recombinant antibody	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). {ECO:0000250 UniProtKB:O08691, ECO:0000269 PubMed:12859189, ECO:0000269 PubMed:22928666, ECO:0000269 PubMed:23832324, ECO:0000269 PubMed:25484082, ECO:0000269 PubMed:27214549, ECO:0000269 PubMed:27745970}.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4502215
NCBI GeneID	384
NCBI Accession #	NP_001163.1
NCBI GenBank Nucleotide #	NM_001172.3
UniProt Accession #	P78540; Q6FHY8; B2R690
Molecular Weight	38,578 Da
NCBI Official Full Name	arginase-2, mitochondrial
NCBI Official Synonym Full Names	arginase 2
NCBI Official Symbol	ARG2
NCBI Protein Information	arginase-2, mitochondrial; kidney arginase; type II arginase; arginase, type II; nonhepatic arginase; kidney-type arginase; non-hepatic arginase; L-arginine ureahydrolase; L-arginine amidinohydrolase
UniProt Protein Name	Arginase-2, mitochondrial
UniProt Gene Name	ARG2
UniProt Entry Name	ARGI2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.