

Anti-ARG2 Antibody (9B190)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	9B190
Purification:	Affinity-chromatography

Applications

Verified Activity:	<p>1. IHC image of TMAH-00081 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.</p> <p>2. Immunofluorescence staining of PC-3 cell with TMAH-00081 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).</p> <p>3. Overlay Peak curve showing PC3 cells stained with TMAH-00081 (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*10⁶ cells) for 45min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG (H+L) at 1:200 dilution for 35min at 4°C. Control antibody (green line) was rabbit IgG (1ug/1*10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.</p>
Application:	ELISA, IHC, IF, FCM
Recommended	IHC:1:50-1:200; IF:1:50-1:200; FCM:1:50-1:200.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human ARG2
Antigen Species:	Human
Gene ID:	384
Uniprot ID:	P78540
Synonyms:	Type II arginase;Arginase-2, mitochondrial;Non-hepatic arginase;ARG2;Kidney-type arginase
Biology Area:	Metabolism, Signal transduction

Research Background

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. May suppress inflammation-related signaling in asthmatic airway epithelium. May contribute to the immune evasion of H.pylori by restricting M1 macrophage activation and polyamine metabolism. In fetal dendritic cells may play a role in promoting immune suppression and T cell TNF-alpha production during gestation. Regulates RPS6KB1 signaling, which promotes endothelial cell senescence and inflammation and implicates NOS3/eNOS dysfunction. Can inhibit endothelial autophagy independently of its enzymatic activity implicating mTORC2 signaling. Involved in vascular smooth muscle cell senescence and apoptosis independently of its enzymatic activity. 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.

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