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ARG1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8976b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P05089
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23044
Calculated MW	34735
Antigen Region	293-322

Additional Information

Gene ID	383
Other Names	Arginase-1, Liver-type arginase, Type I arginase, ARG1
Target/Specificity	This ARG1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 293-322 amino acids from the C-terminal region of human ARG1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ARG1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ARG1
Function	Key element of the urea cycle converting L-arginine to urea and L-ornithine, which is further metabolized into metabolites proline and polyamides that drive collagen synthesis and bioenergetic pathways critical for cell proliferation, respectively; the urea cycle takes place primarily in the liver and,

	to a lesser extent, in the kidneys.
Cellular Location	Cytoplasm. Cytoplasmic granule. Note=Localized in azurophil granules of neutrophils (PubMed:15546957)
Tissue Location	Within the immune system initially reported to be selectively expressed in granulocytes (polymorphonuclear leukocytes [PMNs]) (PubMed:15546957). Also detected in macrophages mycobacterial granulomas (PubMed:23749634). Expressed in group2 innate lymphoid cells (ILC2s) during lung disease (PubMed:27043409)

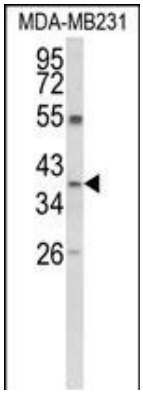
Background

Arginase catalyzes the hydrolysis of arginine to ornithine and urea. At least two isoforms of mammalian arginase exist (types I and II) which differ in their tissue distribution, subcellular localization, immunologic crossreactivity and physiologic function. The type I isoform encoded by this gene, is a cytosolic enzyme and expressed predominantly in the liver as a component of the urea cycle. Inherited deficiency of this enzyme results in argininemia, an autosomal recessive disorder characterized by hyperammonemia.

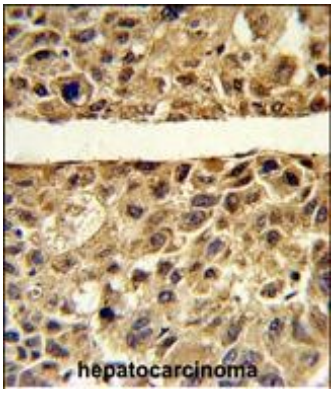
References

Haraguchi,Y., et.al., J. Clin. Invest. 86 (1), 347-350 (1990)

Images

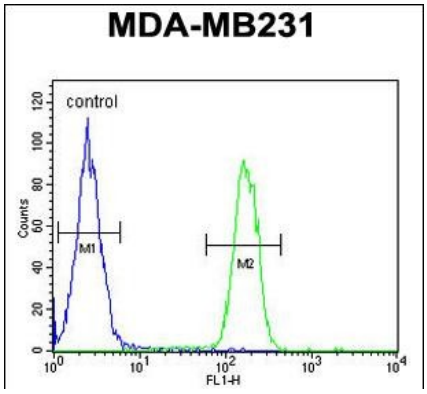


Western blot analysis of ARG1 Antibody (C-term) (Cat. #AP8976b) in MDA-MB231 cell line lysates (35ug/lane). ARG1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with ARG1 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

ARG1 Antibody (C-term) (Cat. #AP8976b) flow cytometric analysis of MDA-MB231 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- ARG1 functions as a tumor suppressor in breast cancer