

Arginase 1 (Hepatocellular Carcinoma Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone ARG1/1126]

Catalog # AH11630

Product Information

Application	IHC, IF, FC
Primary Accession	P05089
Other Accession	383 , 440934
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG3, kappa
Clone Names	ARG1/1126
Calculated MW	34735

Additional Information

Gene ID	383
Other Names	Arginase-1, 3.5.3.1, Liver-type arginase, Type I arginase, ARG1
Application Note	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Arginase 1 (Hepatocellular Carcinoma Marker) Antibody - With BSA and Azide 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

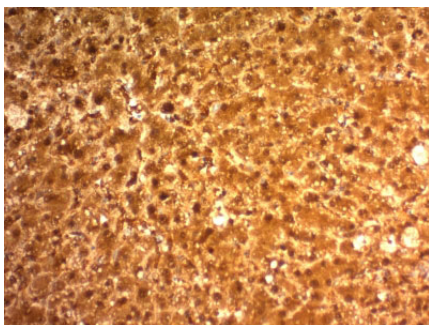
Background

Recognizes a protein of 35-38kDa, which is identified as Arginase 1 (ARG1). Arginase is a manganese metallo-enzyme that catalyzes the hydrolysis of arginine to generate ornithine and urea. Arginase I and II are isoenzymes, which differ in subcellular localization, regulation, and possibly function. Arginase I is a cytosolic enzyme, which is expressed mainly in the liver as part of the urea cycle, whereas arginase II is a mitochondrial protein found in a variety of tissues. Antibody to ARG-1 labels hepatocytes in normal tissues and granulocytes in peripheral blood. ARG-1 is a sensitive and specific marker for identification of hepatocellular carcinoma.

References

Diez, A., et al. 1994. Immunological identity of the two different molecular mass constitutive subunits of liver arginase. *Biol. Chem. Hoppe Seyler* 375: 537-541

Images



Formalin-fixed, paraffin-embedded human Hepatocellular Carcinoma stained with ARG1 Monoclonal Antibody (ARG1/1126).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.