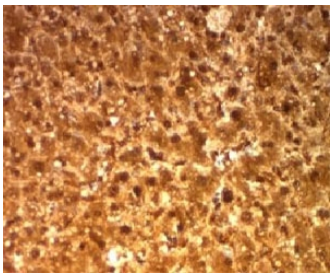
Arginase Antibody Microarray Specificity Validated Clone ARG1/1126 / ARG1 Antibody [clone ARG1/1126] (V2652)

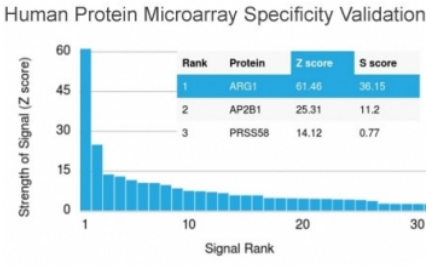
Catalog No.	Formulation	Size
V2652-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2652-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2652SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2652IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

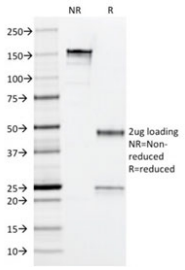
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG3, kappa
Clone Name	ARG1/1126
Purity	Protein G affinity chromatography
UniProt	P05089
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 2-4ug/ml for 30 min at RT Western blot: 1-2ug/ml
Limitations	This Arginase antibody is available for research use only.



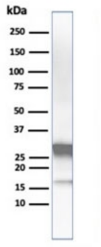
Arginase Antibody Microarray Specificity Validated (clone ARG1/1126) immunohistochemistry of human hepatocellular carcinoma. Formalin-fixed, paraffin-embedded human hepatocellular carcinoma tissue stained with the mouse monoclonal Arginase Antibody Microarray Specificity Validated (clone ARG1/1126) shows strong cytoplasmic HRP-DAB brown chromogenic staining in malignant hepatocyte-derived tumor cells, consistent with the known hepatic expression of Arginase-1 (ARG1). The staining pattern highlights the cytoplasmic localization of this urea cycle enzyme within tumor cells. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at room temperature prior to antibody incubation.



Arginase Antibody Microarray Specificity Validated (clone ARG1/1126) protein microarray specificity analysis. Screening on the HuProt(TM) human protein microarray containing more than 19,000 full-length human proteins demonstrates highly selective binding of the ARG1/1126 mouse monoclonal antibody to Arginase-1 (ARG1), which ranks as the top target with the strongest signal intensity on the array. This result confirms strong specificity of the antibody for ARG1 relative to other proteins represented on the microarray.
The Z-score represents the strength of the fluorescence signal generated when the antibody binds a specific protein on the HuProt(TM) array and is expressed as the number of standard deviations above the mean signal intensity of all proteins on the array. When proteins are ranked by descending Z-score, the S-score represents the difference between successive Z-scores and therefore reflects the relative specificity of the antibody for its intended target compared with other detected proteins.



SDS-PAGE analysis of purified, BSA-free Arginase antibody (clone ARG1/1126) as confirmation of integrity and purity.



Western blot analysis of human liver lysate using Arginase 1 antibody (ARG1/1126). Predicted molecular weight ~35 kDa.

Description

Arginase-1 (ARG1), encoded by the ARG1 gene and commonly referred to as liver arginase or arginine ureahydrolase, is a cytosolic enzyme that catalyzes the final step of the urea cycle by converting L-arginine into urea and ornithine. This enzymatic reaction is essential for ammonia detoxification and nitrogen metabolism, particularly in hepatocytes where the urea cycle operates at high capacity. Arginase Antibody Microarray Specificity Validated Clone ARG1/1126 detects ARG1 protein and supports research focused on liver metabolism, urea cycle biology, and hepatocyte-associated metabolic pathways.

Arginase-1 belongs to the arginase enzyme family and functions as a manganese-dependent hydrolase located primarily in the cytoplasm. By catalyzing the hydrolysis of arginine, ARG1 contributes to nitrogen disposal and provides ornithine

for downstream metabolic processes including polyamine synthesis and proline production. Because of its metabolic importance in hepatocytes, ARG1 expression is strongly enriched in liver tissue and is widely used as a marker of hepatocellular differentiation in biological and cancer research.

In normal physiology, arginase-1 expression is highest in hepatocytes where the enzyme participates directly in ammonia detoxification through the hepatic urea cycle. Detection of ARG1 protein is frequently used to investigate liver metabolic function, hepatocyte identity, and the molecular pathways that regulate nitrogen metabolism. The highly enriched hepatic expression pattern of arginase-1 also makes ARG1 a useful biomarker for identifying hepatocyte-derived cells in tissue-based studies.

Arginase-1 expression has also been extensively studied in hepatocellular carcinoma and other liver-associated malignancies. Many hepatocyte-derived tumors retain ARG1 expression, allowing detection of arginase-1 protein to support identification of hepatocellular lineage in tumor cells. Measurement of ARG1 expression can therefore contribute to research exploring hepatocyte differentiation, liver tumor biology, and metabolic enzyme regulation in malignant tissues.

Clone ARG1/1126 has been evaluated using large-scale protein microarray specificity analysis. Protein microarray validation enables testing of antibody binding against thousands of individual human proteins simultaneously, providing a high-throughput approach for assessing target selectivity. In this type of assay, antibodies are screened against comprehensive protein arrays to confirm that the strongest signal corresponds to the intended antigen while minimizing cross-reactivity with unrelated proteins.

Arginase Antibody Microarray Specificity Validated Clone ARG1/1126 is a mouse monoclonal antibody developed for research applications targeting ARG1 protein. Protein microarray specificity analysis supports the selective recognition of arginase-1 and provides confidence in the antibody's ability to detect ARG1 in studies examining liver metabolism, hepatocyte biology, and arginine metabolic pathways.

Explore our protein microarray-validated Arginase 1 Antibody ARG1/1125 for investigating ARG1 expression, hepatocellular differentiation, and arginine metabolism.

Application Notes

Optimal dilution of the Arginase Antibody Microarray Specificity Validated Clone ARG1/1126 should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A recombinant fragment from amino acids 1-150 of human ARG1 was used as the immunogen for the Arginase antibody.

Storage

Store the Arginase antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Arginase-1 antibody, ARG1 antibody, Liver arginase antibody, Arginine ureahydrolase antibody

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