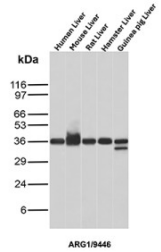
Arginase 1 Antibody for WB / ARG1 Western Blot Antibody [clone ARG1/9446] (V5753)

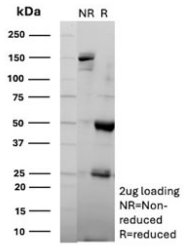
Catalog No.	Formulation	Size
V5753-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5753-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5753SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

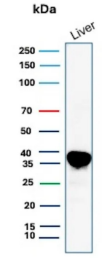
Species Reactivity	Human, Mouse, Rat, Hamster, Guinea pig
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	ARG1/9446
Purity	Protein G affinity
UniProt	P05089
Localization	Cytoplasm
Applications	Western blot: 2-4ug/ml
Limitations	This Arginase-1 antibody is available for research use only.



Arginase 1 Antibody for WB - Western Blot in Multiple Species. Western blot analysis of human, mouse, rat, hamster, and guinea pig liver tissue lysates using Arginase 1 Antibody for WB (ARG1/9446). Lane 1: human liver; lane 2: mouse liver; lane 3: rat liver; lane 4: hamster liver; lane 5: guinea pig liver. A prominent immunoreactive band is detected at approximately 35-38 kDa in all five species, consistent with the predicted molecular weight of ARG1 (~35 kDa). The ARG1 Western Blot Antibody demonstrates cross-species reactivity, with particularly strong signals in mouse and rat liver lysates. A faint additional band near 32 kDa is visible in guinea pig liver.



SDS-PAGE analysis of purified, BSA-free Arginase 1 antibody (clone ARG1/9446) as confirmation of integrity and purity.



Arginase 1 Antibody for WB (clone ARG1/9446). Western blot analysis of human liver lysate. Western blot detection using the mouse monoclonal Arginase 1 Antibody for WB (clone ARG1/9446) shows a strong immunoreactive band in human liver tissue lysate. Lane 1: human liver lysate. A band is detected at approximately 35 kDa, consistent with the predicted molecular weight of Arginase-1 (ARG1), a cytosolic urea cycle enzyme highly enriched in hepatocytes and responsible for the conversion of L-arginine to urea and ornithine in hepatic nitrogen metabolism.

Description

Arginase-1 (ARG1), encoded by the ARG1 gene and also referred to as liver arginase or arginine ureahydrolase, is a cytosolic enzyme that catalyzes the final step of the hepatic urea cycle by converting L-arginine into urea and ornithine. This reaction plays a central role in ammonia detoxification and nitrogen metabolism, particularly within hepatocytes where urea cycle activity is highest. Arginase 1 Antibody for WB (clone ARG1/9446) is designed for western blot analysis of ARG1 protein in cell and tissue lysates, enabling detection and characterization of this important metabolic enzyme by immunoblotting.

Western blot analysis provides a widely used method for detecting specific proteins following separation by SDS-PAGE and transfer to a membrane. Arginase 1 Antibody for WB allows researchers to identify ARG1 protein within complex lysates and evaluate its expression level relative to other cellular proteins. In western blot experiments, ARG1 typically appears as a band corresponding to its predicted molecular weight, allowing confirmation of protein identity and relative abundance in biological samples.

ARG1 protein expression is strongly enriched in hepatocytes of the liver, reflecting the essential role of the urea cycle in hepatic nitrogen metabolism. Western blot detection of arginase-1 is therefore commonly performed using liver tissue lysates or hepatocyte-derived cell lines where ARG1 expression is prominent. Detection of a clear immunoreactive band at the expected molecular weight supports identification of arginase-1 within these samples and allows comparison of ARG1 expression across experimental conditions.

Western blot analysis using Arginase 1 Antibody for WB can also be used to examine arginase-1 expression in hepatocyte-derived tumor models such as hepatocellular carcinoma cell lines. Because many liver-derived tumor cells retain metabolic characteristics of hepatocytes, ARG1 protein can often be detected in these systems. Immunoblot detection therefore supports studies investigating metabolic enzyme expression and hepatocyte-associated pathways in both normal and tumor-derived cells.

Immunoblotting approaches also allow researchers to evaluate ARG1 protein expression under varying experimental conditions, including metabolic regulation, cellular differentiation, or disease-associated changes in liver metabolism. By separating proteins based on molecular weight and probing membranes with specific antibodies, western blot analysis provides a reliable approach for confirming ARG1 expression in biological samples.

Arginase 1 Antibody for WB (clone ARG1/9446) is a mouse monoclonal antibody developed for western blot applications targeting the ARG1 enzyme. Detection of arginase-1 using this antibody supports studies examining hepatic metabolism, urea cycle enzyme expression, and molecular pathways involved in arginine catabolism.

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 1 Antibody for WB should be determined by the researcher.

Immunogen

A portion of amino acids 1-200 from human ARG1 proteinwas used as the immunogen for the Arginase-1 antibody.

Storage

Aliquot the Arginase-1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

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