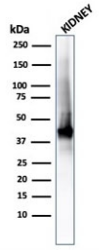
AMACR/p504S Antibody [clone rAMACR/1864] (V7785)

Catalog No.	Formulation	Size
V7785-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7785-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7785SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

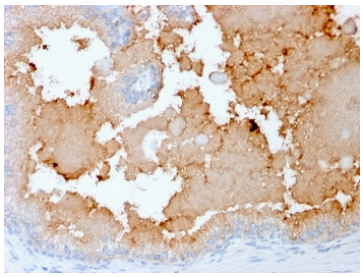
Recombinant MOUSE MONOCLONAL

Bulk quote request

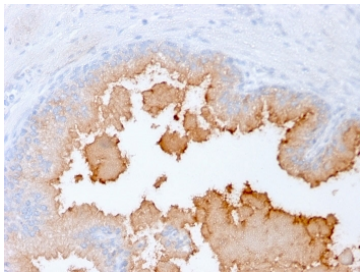
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rAMACR/1864
Purity	Protein G affinity chromatography
UniProt	Q9UHK6
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 1-2ug/ml
Limitations	This recombinant AMACR/p504S antibody is available for research use only.



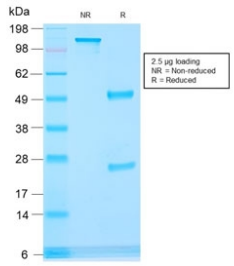
AMACR/p504S Antibody Human Kidney WB. Western blot testing of human kidney lysate with recombinant AMACR/p504S antibody (clone rAMACR/1864). Predicted molecular weight ~43 kDa.



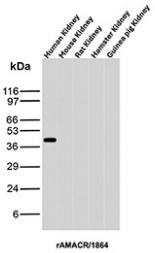
AMACR/p504S Antibody Human Prostate Carcinoma Tissue Immunohistochemistry. IHC staining of FFPE human prostate carcinoma with recombinant AMACR/p504S antibody (clone rAMACR/1864). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



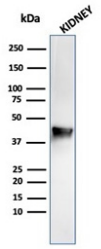
AMACR/p504S Antibody Human Prostate Carcinoma Tissue Immunohistochemistry. IHC staining of FFPE human prostate carcinoma with recombinant AMACR/p504S antibody (clone rAMACR/1864). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free recombinant AMACR/p504S antibody (clone rAMACR/1864) as confirmation of integrity and purity.



AMACR/p504S Antibody WB. Western blot analysis of Alpha-methylacyl-CoA racemase expression in kidney tissue lysates. Kidney tissue lysates from human, mouse, rat, hamster, and guinea pig were analyzed by western blot using AMACR/p504S antibody (clone rAMACR/1864). A single immunoreactive band is detected in human kidney lysate, migrating near the predicted molecular weight of Alpha-methylacyl-CoA racemase, while little to no signal is observed in the corresponding kidney lysates from other species under the conditions tested.



AMACR/p504S Antibody Kidney Lysate WB. Western blot testing of human kidney lysate with recombinant AMACR/p504S antibody (clone rAMACR/1864). Predicted molecular weight ~43 kDa.

Description

AMACR/p504S antibody is used to study Alpha-methylacyl-CoA racemase, a peroxisomal and mitochondrial enzyme involved in the beta-oxidation of branched-chain fatty acids and bile acid intermediates. Alpha-methylacyl-CoA racemase is encoded by the AMACR gene and catalyzes the interconversion of R- and S-stereoisomers of alpha-methyl-branched acyl-CoA substrates, a necessary step for their subsequent degradation through beta-oxidation pathways. This enzymatic activity links AMACR to lipid metabolism and energy homeostasis in metabolically active tissues.

Alpha-methylacyl-CoA racemase is widely known as p504S, a designation that originated from early gene expression studies identifying strong upregulation of this protein in prostate carcinoma. The p504S antigen became an important

marker for distinguishing malignant prostate epithelium from benign glands, leading to extensive use of AMACR/p504S antibody in studies of prostate cancer biology and diagnostic marker evaluation. Use of an AMACR/p504S antibody enables investigation of this cancer-associated expression pattern in tissue and cell-based research models.

At the subcellular level, Alpha-methylacyl-CoA racemase localizes primarily to the cytoplasm, with enrichment in peroxisomes and mitochondria, reflecting its role in fatty acid metabolism. This localization supports metabolic processing of branched-chain lipids derived from dietary sources and bile acid synthesis. Studies using AMACR antibody have helped define its compartmentalized activity and its contribution to lipid catabolism in epithelial and metabolic tissues.

Beyond prostate cancer, altered expression of Alpha-methylacyl-CoA racemase has been reported in additional malignancies, including renal cell carcinoma, hepatocellular carcinoma, and colorectal cancer, suggesting broader relevance in tumor-associated metabolic reprogramming. Elevated AMACR expression is thought to reflect increased reliance on lipid metabolism pathways in proliferating tumor cells. Detection of AMACR using an AMACR/p504S antibody supports research into metabolic adaptation, tumor progression, and lipid utilization in cancer biology.

AMACR/p504S antibody (clone rAMACR/1864) is designed to detect Alpha-methylacyl-CoA racemase in research applications. Analysis of AMACR expression provides insight into fatty acid metabolism, peroxisomal and mitochondrial function, and disease-associated metabolic changes. Alpha-methylacyl-CoA racemase remains a key enzyme for studies examining the intersection of lipid metabolism and cancer-associated metabolic remodeling.

For additional AMACR and p504S research antibodies validated by protein microarray specificity analysis, western blotting, and immunohistochemistry, explore the broader AMACR Antibody page featuring clone AMACR/1864.

Application Notes

Optimal dilution of the recombinant AMACR/p504S antibody should be determined by the researcher.

Immunogen

A human recombinant partial protein (amino acids 297-394) was used as the immunogen for the recombinant AMACR/p504S antibody.

Storage

Store the recombinant AMACR/p504S antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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