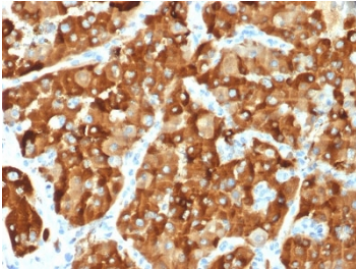


## AMACR Antibody / Alpha-methylacyl-CoA Racemase Antibody [clone AMACR/1864] (V7479)

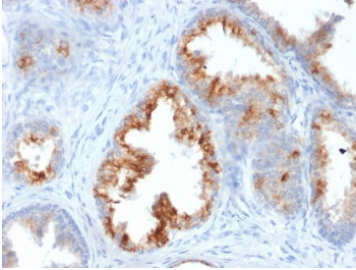
Catalog No.	Formulation	Size
V7479-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7479-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7479SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7479IHC-7ML	Prediluted 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

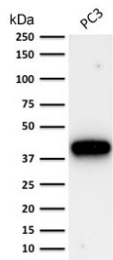
<b>Availability</b>	1-3 business days
<b>Species Reactivity</b>	Human
<b>Format</b>	Purified
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal (mouse origin)
<b>Isotype</b>	Mouse IgG1, kappa
<b>Clone Name</b>	AMACR/1864
<b>Purity</b>	Protein G affinity chromatography
<b>UniProt</b>	Q9UHK6
<b>Localization</b>	Cytoplasmic
<b>Applications</b>	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
<b>Limitations</b>	This AMACR Antibody / Alpha-methylacyl-CoA Racemase Antibody is available for research use only.



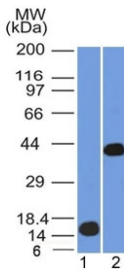
AMACR Antibody Renal Carcinoma IHC. Immunohistochemistry staining of FFPE human renal carcinoma tissue using clone AMACR/1864 demonstrates strong diffuse granular cytoplasmic HRP-DAB brown staining in malignant epithelial cells, consistent with the established carcinoma-associated expression pattern of Alpha-methylacyl-CoA racemase / AMACR in renal malignancy tissue. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



AMACR Antibody Prostate Carcinoma IHC. Immunohistochemistry staining of FFPE human prostate carcinoma tissue using clone AMACR/1864 demonstrates granular cytoplasmic HRP-DAB brown staining in malignant prostatic epithelial cells, consistent with the characteristic expression pattern of AMACR / p504S in prostate adenocarcinoma. Required HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.

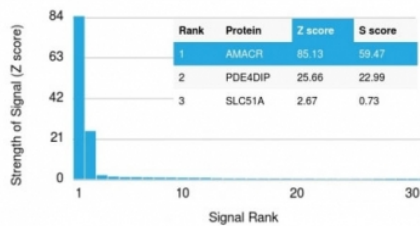


AMACR Antibody PC-3 WB. Western blot analysis of human PC-3 cell lysate using clone AMACR/1864 demonstrates a strong band at approximately 40-43 kDa, consistent with the predicted molecular weight of Alpha-methylacyl-CoA racemase / AMACR. The observed signal supports expression of this carcinoma-associated metabolic enzyme in prostate cancer-derived cells, aligning with the established role of p504S as a prostate adenocarcinoma marker.

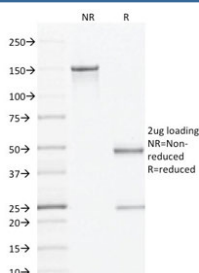


AMACR Antibody Human Kidney WB. Western blot analysis of human partial protein and human kidney lysate using clone AMACR/1864 demonstrates a major band at approximately 40-43 kDa in kidney lysate, consistent with the predicted molecular weight of Alpha-methylacyl-CoA racemase / AMACR. The recombinant partial protein control migrates at a lower apparent molecular weight, as expected for a truncated protein fragment used for antibody validation.

#### Human Protein Microarray Specificity Validation



AMACR Antibody Protein Microarray Specificity Analysis. Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using clone AMACR/1864 identified Alpha-methylacyl-CoA racemase / AMACR as the dominant target with a Z-score of 85.13 and an S-score of 59.47, supporting highly selective target recognition. The markedly elevated S-score demonstrates strong preferential binding of the antibody to AMACR relative to unrelated proteins present on the array. The Z-score represents signal intensity generated by antibody binding relative to the mean signal across the array, while the S-score reflects the difference in signal strength between successive ranked targets, serving as a measure of relative target specificity.



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



AMACR Antibody Human Kidney WB. Western blot analysis of human kidney lysate using clone AMACR/1864 demonstrates a distinct band at approximately 40-43 kDa, consistent with the predicted molecular weight of Alpha-methylacyl-CoA racemase / AMACR. The observed signal supports expression of this peroxisomal and mitochondrial metabolic enzyme involved in branched-chain fatty acid and bile acid metabolism within renal tissue.

## Description

Alpha-methylacyl-CoA racemase (AMACR) is a peroxisomal and mitochondrial metabolic enzyme involved in branched-chain fatty acid beta-oxidation and bile acid biosynthesis pathways. AMACR Antibody / Alpha-methylacyl-CoA Racemase Antibody recognizes a lipid metabolism-associated enzyme that catalyzes the racemization of alpha-methyl branched-chain fatty acyl-CoA esters, an essential biochemical step required for normal peroxisomal fatty acid processing and metabolic homeostasis.

AMACR antibody, also referred to as p504S antibody and Alpha-methylacyl-CoA racemase antibody in the literature, is widely used in cancer biology and surgical pathology research due to the characteristic overexpression of AMACR in prostate adenocarcinoma and additional epithelial malignancies. Clone AMACR/1864 antibody is useful for investigating carcinoma-associated metabolic reprogramming, epithelial differentiation patterns, and tumor-associated enzyme expression in cancer research applications.

AMACR is primarily localized to peroxisomes and mitochondria where it participates in lipid metabolic pathways involving branched-chain fatty acid degradation and bile acid intermediate metabolism. Increased AMACR expression has been documented in prostate carcinoma, colorectal carcinoma, hepatocellular carcinoma, renal neoplasms, and additional epithelial tumor types. In prostate pathology research, AMACR is well established as a diagnostically relevant carcinoma-associated biomarker frequently studied alongside basal cell markers to support characterization of prostatic adenocarcinoma.

Immunohistochemistry staining with AMACR antibodies commonly demonstrates granular cytoplasmic positivity in malignant epithelial cells, reflecting the organelle-associated localization pattern of this metabolic enzyme. Western blot analysis typically identifies AMACR near 40-42 kDa, consistent with the predicted molecular weight of the mature protein, although minor migration differences may occur depending on species, isoform expression patterns, or post-translational modification state.

Analysis of HuProt(TM) protein microarray containing more than 19,000 full-length human proteins demonstrated highly selective binding of clone AMACR/1864 to AMACR. The observed Z-score and elevated S-score support strong target specificity relative to other proteins present on the array, supporting the utility of this monoclonal antibody for studies requiring selective AMACR detection. Complementary western blot and immunohistochemistry data further support the use of this clone in carcinoma-associated expression analysis and metabolism-focused cancer research applications.

AMACR has also become increasingly relevant in studies examining tumor metabolism and lipid utilization pathways, as altered fatty acid processing is now recognized as an important component of epithelial tumor progression and metabolic adaptation. The association between elevated AMACR expression and malignant transformation has contributed to the continued use of AMACR and p504S antibodies in prostate cancer, colorectal cancer, and carcinoma metabolism research.

Together, the available western blot, immunohistochemistry, and protein microarray specificity data support the use of AMACR antibody clone AMACR/1864 for investigating carcinoma-associated metabolic enzyme expression and tumor-related lipid metabolism pathways.

Explore additional [Cancer Antibodies](#) targeting prostate carcinoma markers, tumor metabolism proteins, and epithelial cancer-associated biomarkers.

## Application Notes

Optimal dilution of the AMACR Antibody / Alpha-methylacyl-CoA Racemase Antibody 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 portion of amino acids 297-394 was used as the immunogen for the AMACR antibody.

## Storage

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

## Alternate Names

AMACR antibody, p504S antibody, Alpha-methylacyl-CoA racemase antibody, AMACR microarray validated antibody, clone AMACR/1864 antibody