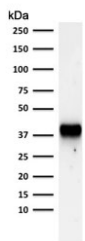
AMACR Antibody (Prostate Cancer Marker) [clone AMACR/1723] (V3237)

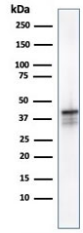
Catalog No.	Formulation	Size
V3237-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3237-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3237SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

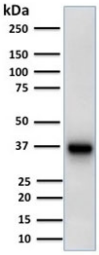
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Hamster, Guinea pig
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, lambda
Clone Name	AMACR/1723
Purity	Protein G affinity chromatography
UniProt	Q9UHK6
Localization	Cytoplasmic
Applications	Western Blot : 0.5-2ug/ml (Human/Mouse/Rat/Hamster/Guinea pig) Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT (Human)
Limitations	This AMACR antibody is available for research use only.



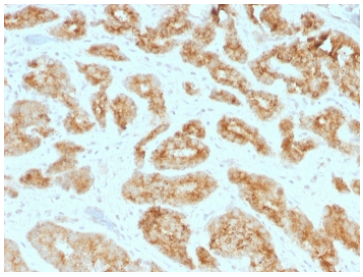
AMACR Antibody PC3 Cell WB. Western blot testing of human PC3 cell lysate with AMACR antibody. Predicted molecular weight ~43 kDa.



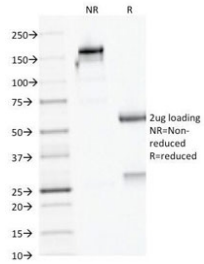
Western blot testing of human kidney lysate with AMACR antibody. Predicted molecular weight ~43 kDa.



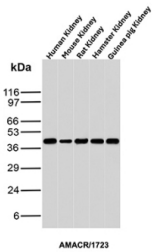
Western blot testing of human liver lysate with AMACR antibody. Predicted molecular weight ~43 kDa.



IHC testing of FFPE human prostate carcinoma with AMACR antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free AMACR antibody as confirmation of integrity and purity.



AMACR Antibody Kidney Tissue WB. Western blot analysis of human, mouse, rat, hamster, and guinea pig kidney tissue lysates using AMACR Antibody clone AMACR/1723 demonstrates a consistent band at approximately 40-42 kDa across all tested species, corresponding to the predicted molecular weight of Alpha-methylacyl-CoA racemase / AMACR. The conserved cross-species detection pattern supports recognition of this peroxisomal and mitochondrial enzyme involved in branched-chain fatty acid and bile acid metabolism.

Description

AMACR antibody is an essential reagent for examining alpha methylacyl CoA racemase, a peroxisomal and mitochondrial enzyme that plays a central role in fatty acid metabolism. AMACR catalyzes the racemization of alpha methyl branched chain fatty acyl CoA esters, allowing their subsequent degradation via beta oxidation. This enzyme is critical for metabolizing both dietary branched chain fatty acids and bile acid intermediates, underscoring its importance in energy and lipid homeostasis.

Mutations in the AMACR gene have been linked to rare metabolic disorders characterized by accumulation of branched chain fatty acids, leading to neurological dysfunction and other systemic symptoms. Beyond inherited disease, AMACR

has garnered attention for its role in oncology. Overexpression of AMACR is a consistent feature of prostate carcinoma and has been observed in other malignancies, including renal cell carcinoma and colorectal cancer. This expression profile has made AMACR a useful marker in diagnostic pathology and a focus of cancer metabolism research.

The AMACR antibody clone AMACR/1723 provides dependable detection of this metabolic enzyme in both normal and diseased tissues. Clone AMACR/1723 has been used to confirm elevated AMACR expression in prostate tumors, aiding in the distinction of malignant from benign lesions. Its specificity ensures clear labeling of target epitopes, making it a reliable choice for investigating the metabolic adaptations associated with tumorigenesis.

AMACR continues to be studied as a biomarker for cancer progression and as a potential therapeutic target. By linking fatty acid metabolism with tumor growth, this enzyme highlights the connections between metabolic reprogramming and malignancy. Research into AMACR expression also informs investigations into fatty acid disorders and peroxisomal dysfunction, where altered enzyme activity disrupts normal metabolic balance. The consistent performance of clone AMACR/1723 makes it a trusted reagent across these research areas.

NSJ Bioreagents offers this AMACR antibody to support work in cancer biology, metabolism, and genetic disease. Researchers may also find this protein referred to as alpha methylacyl CoA racemase antibody, racemase antibody, RM antibody, and AMACR1 antibody. These alternate names are used in different research communities but all point to the same critical enzyme involved in branched chain fatty acid catabolism and tumor biology.

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 AMACR antibody should be determined by the researcher.

Immunogen

A recombinant human protein 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).