Anti-AMACR Antibody [PSH13-54]

HA723543

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P, IF-Tissue
Molecular Wt:	Predicted band size: 42 kDa
Clone number:	PSH13-54

Description: α-Methylacyl-CoA racemase (AMACR, EC 5.1.99.4) is an enzyme that in humans is encoded by the AMACR gene. In mammalian cells, the enzyme is responsible for converting (2R)-methylacyl-CoA esters to their (2S)-methylacyl-CoA epimers and known substrates, including coenzyme A esters of pristanic acid (mostly derived from phytanic acid, a 3-methyl branched-chain fatty acid that is abundant in the diet) and bile acids derived from cholesterol. This transformation is required in order to degrade (2R)-methylacyl-CoA esters by β-oxidation, which process requires the (2S)-epimer. The enzyme is known to be localised in peroxisomes and mitochondria, both of which are known to β-oxidize 2-methylacyl-CoA esters.

Immunogen: Recombinant protein within human AMACR aa 1-382.

Positive control: LNCaP cell lysate, U-2 OS cell lysate, A375 cell lysate, Mouse kidney tissue lysate, human prostate cancer tissue, human renal cell carcinoma tissue, human kidney tissue.

Subcellular location: Peroxisome, Mitochondrion.

Database links: SwissProt: Q9UHK6 Human | O09174 Mouse

Recommended Dilutions:

WB	1:5,000
IHC-P	1:10,000
IF-Tissue	1:1,000

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

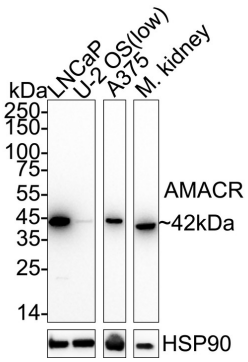

Fig1: Western blot analysis of AMACR on different lysates with Rabbit anti-AMACR antibody (HA723543) at 1/5,000 dilution.

Lane 1: LNCaP cell lysate (20 µg/Lane)
Lane 2: U-2 OS cell lysate (low expression) (20 µg/Lane)
Lane 3: A375 cell lysate (20 µg/Lane)
Lane 4: Mouse kidney tissue lysate (40 µg/Lane)

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 2 minute 22 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA723543) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

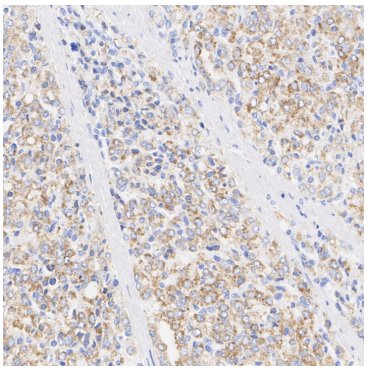

Fig2: Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue with Rabbit anti-AMACR antibody (HA723543) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA723543) at 1/10,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

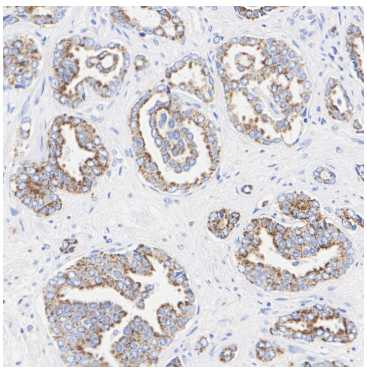

Fig3: Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue with Rabbit anti-AMACR antibody (HA723543) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA723543) at 1/10,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

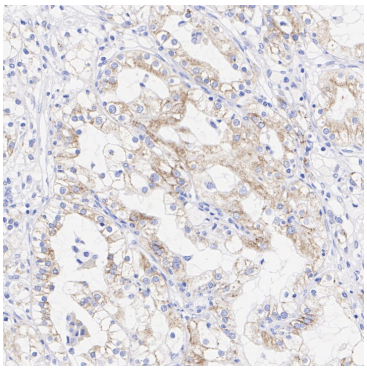

Fig4: Immunohistochemical analysis of paraffin-embedded human renal cell carcinoma tissue with Rabbit anti-AMACR antibody (HA723543) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA723543) at 1/10,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

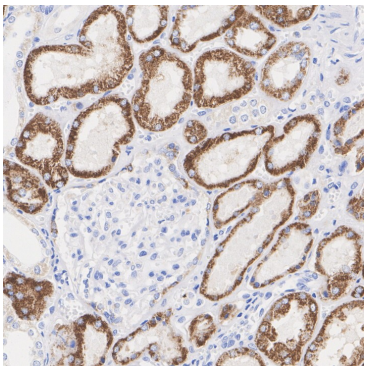

Fig5: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-AMACR antibody (HA723543) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA723543) at 1/10,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

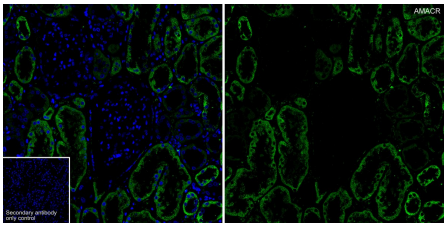

Fig6: Application: IF-Tissue

Species: Human

Site: kidney

Sample: Paraffin-embedded section

Antibody concentration: 1/1,000

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Lerner G et al. AMACR Expression is a Potential Diagnostic Marker in Apocrine Lesions of Breast, and is Associated with High Histologic Grade and Lymph Node Metastases in Some Invasive Apocrine Breast Cancers. Clin Breast Cancer. 2023 Feb
2. Travaglino A et al. Diagnostic accuracy of HNF1beta, Napsin A and P504S/Alpha-Methylacyl-CoA Racemase (AMACR) as markers of endometrial clear cell carcinoma. Pathol Res Pract. 2022 Sep