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Anti-ARA9/AIP Antibody Picoband™ (monoclonal, 10G8)

Catalog # ABO14831

Specification

Anti-ARA9/AIP Antibody Picoband™ (monoclonal, 10G8) - Product Information

Application	**WB, IHC, IF, ICC, FC**
Primary Accession	O00170
Host	**Mouse**
Isotype	**Mouse IgG2b**
Reactivity	**Rat, Human, Mouse, Monkey**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-ARA9/AIP Antibody Picoband™ (monoclonal, 10G8) . Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Monkey, Mouse, Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500 µg/ml.

Anti-ARA9/AIP Antibody Picoband™ (monoclonal, 10G8) - Additional Information

Gene ID 9049

Other Names
AH receptor-interacting protein, AIP, Aryl-hydrocarbon receptor-interacting protein, HBV X-associated protein 2, XAP-2, Immunophilin homolog ARA9, AIP, XAP2

Calculated MW
38 kDa KDa

Application Details
Western blot, 0.1-0.5 µg/ml
 Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml
 Immunocytochemistry/Immunofluorescence, 2 µg/ml
 Flow Cytometry, 1-3 µg/1x10^6 cells

Subcellular Localization
Cytoplasm

Tissue Specificity
Widely expressed. Higher levels seen in the heart, placenta and skeletal muscle. Not expressed in the liver.

Contents
Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human ARA9 recombinant protein (Position: D91-H330). Human ARA9 shares 95% amino acid (aa) sequence identity with both mouse and rat ARA9.

Cross Reactivity
No cross-reactivity with other proteins.

Storage

Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.

Anti-ARA9/AIP Antibody Picoband™ (monoclonal, 10G8) - Protein Information

Name AIP

Synonyms XAP2

Function
May play a positive role in AHR-mediated (aromatic hydrocarbon receptor) signaling, possibly by influencing its receptivity for ligand and/or its nuclear targeting.

Cellular Location
Cytoplasm.

Tissue Location
Widely expressed. Higher levels seen in the heart, placenta and skeletal muscle. Not expressed in the liver

Anti-ARA9/AIP Antibody Picoband™ (monoclonal, 10G8) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-ARA9/AIP Antibody Picoband™ (monoclonal, 10G8) - Images

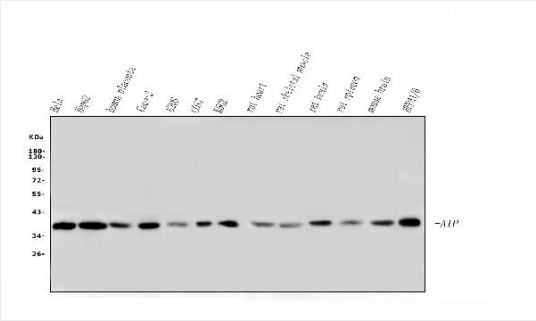

Figure 1. Western blot analysis of ARA9/AIP using anti-ARA9/AIP antibody (M02759).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human HELA whole cell lysates,
Lane 2: human HEPG2 whole cell lysates,
Lane 3: human placenta tissue lysates,
Lane 4: human CACO-2 whole cell lysates,
Lane 5: human U20S whole cell lysates,
Lane 6: monkey COS-7 whole cell lysates,
Lane 7: human K562 whole cell lysates,
Lane 8: rat heart tissue lysates,
Lane 9: rat skeletal muscle tissue lysates,
Lane 10: rat brain tissue lysates,
Lane 11: rat spleen tissue lysates,
Lane 12: mouse brain tissue lysates,
Lane 13: mouse HEPA1-6 whole cell lysates.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-ARA9/AIP antigen affinity purified monoclonal antibody (Catalog # M02759) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for ARA9/AIP at approximately 38KD. The expected band size for ARA9/AIP is at 38KD.

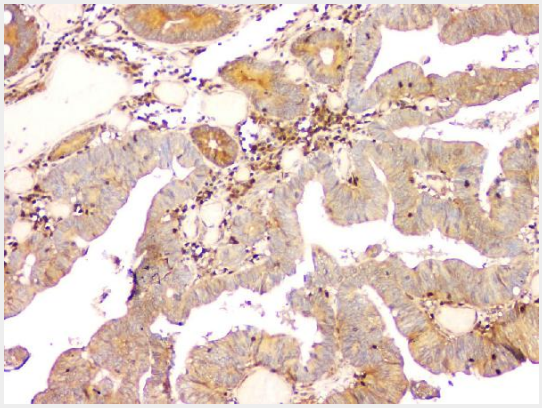

Figure 2. IHC analysis of ARA9/AIP using anti-ARA9/AIP antibody (M02759).
ARA9/AIP was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-ARA9/AIP Antibody (M02759) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

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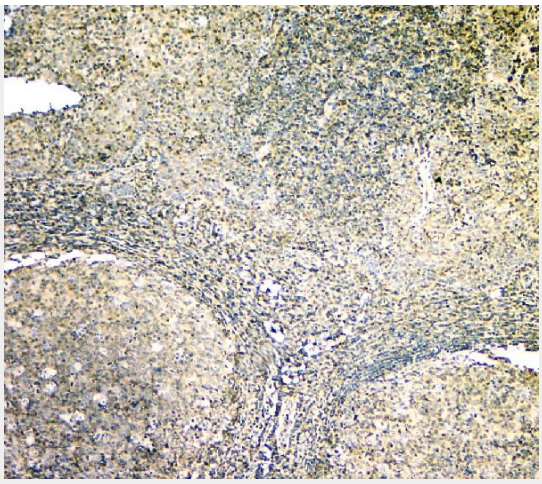

Figure 3. IHC analysis of ARA9/AIP using anti-ARA9/AIP antibody (M02759).
ARA9/AIP was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-ARA9/AIP Antibody (M02759) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

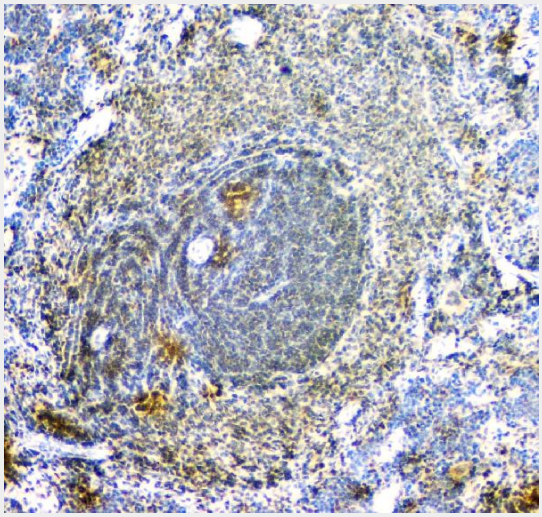

Figure 4. IHC analysis of ARA9/AIP using anti-ARA9/AIP antibody (M02759).
ARA9/AIP was detected in paraffin-embedded section of rat spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-ARA9/AIP Antibody (M02759) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

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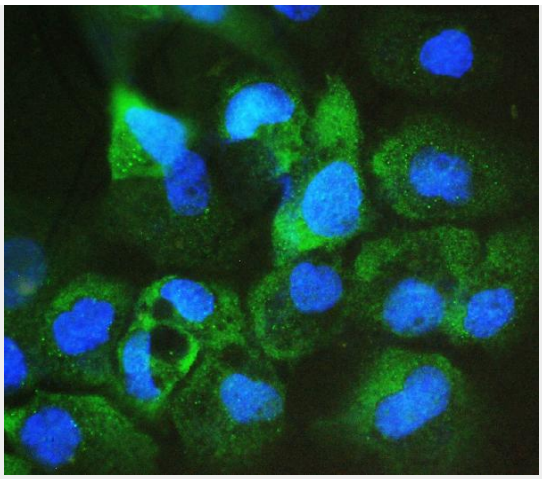

Figure 5. IF analysis of ARA9/AIP using anti-ARA9/AIP antibody (M02759).
ARA9/AIP was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2 µg/mL mouse anti-ARA9/AIP Antibody (M02759) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

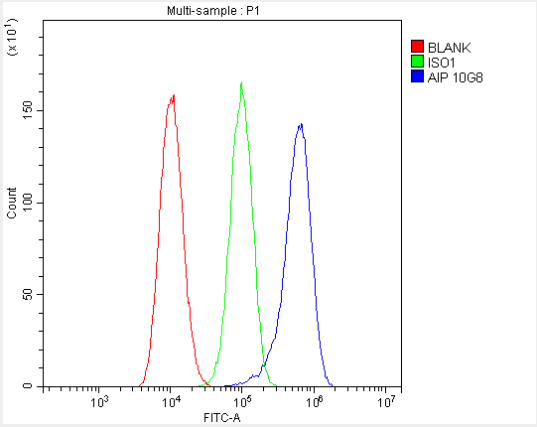

Figure 6. Flow Cytometry analysis of A549 cells using anti-ARA9/AIP antibody (M02759).
Overlay histogram showing A549 cells stained with M02759 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-ARA9/AIP Antibody (M02759, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-ARA9/AIP Antibody Picoband™ (monoclonal, 10G8) - Background

AIP, also known as, ARA9 or XAP-2, is a protein that in humans is encoded by the AIP gene. This gene is mapped to 11q13.2. The encoded protein is found in the cytoplasm as part of a multiprotein complex, but upon binding of ligand is transported to the nucleus. AIP may play a positive role in aryl hydrocarbon receptor-mediated signalling possibly by influencing its receptivity for ligand and/or its nuclear targeting. It has been shown that AIP is the cellular negative regulator of the hepatitis B virus (HBV) X protein. AIP mutations may be the cause of a familial form of acromegaly, familial isolated pituitary adenoma (FIPA).