

**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	<a href="#">O00170</a>
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<br> Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml<br> Immunocytochemistry/Immunofluorescence, 2 µg/ml<br> Flow Cytometry, 1-3 µg/1x10<sup>6</sup> cells<br>

**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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>N.

**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  $-20^{\circ}\text{C}$  for one year from date of receipt. After reconstitution, at  $4^{\circ}\text{C}$  for one month. It can also be aliquotted and stored frozen at  $-20^{\circ}\text{C}$  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](#)

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

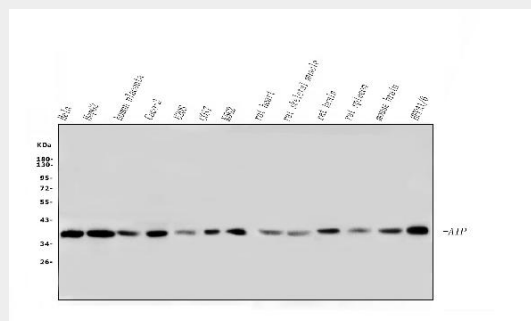


Figure 1. Western blot analysis of ARA9/AIP using anti-ARA9/AIP antibody (M02759).

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.

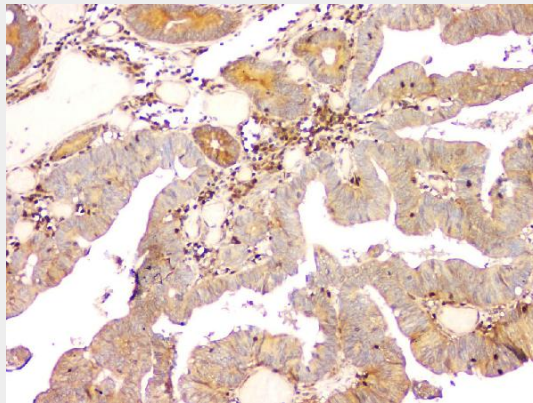


Figure 2. IHC analysis of ARA9/AIP using anti-ARA9/AIP antibody (M02759).

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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

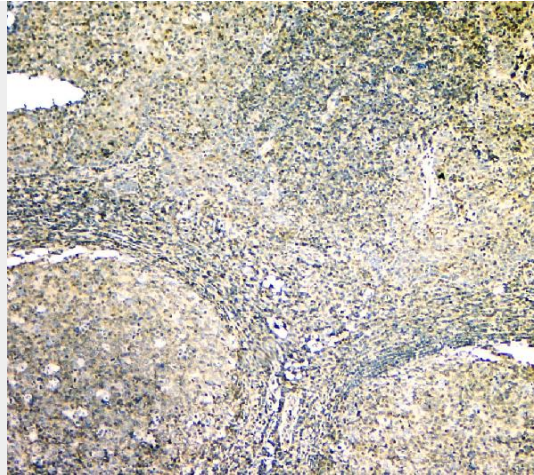


Figure 3. IHC analysis of ARA9/AIP using anti-ARA9/AIP antibody (M02759). ARA9/AIP was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1  $\mu$ g/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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

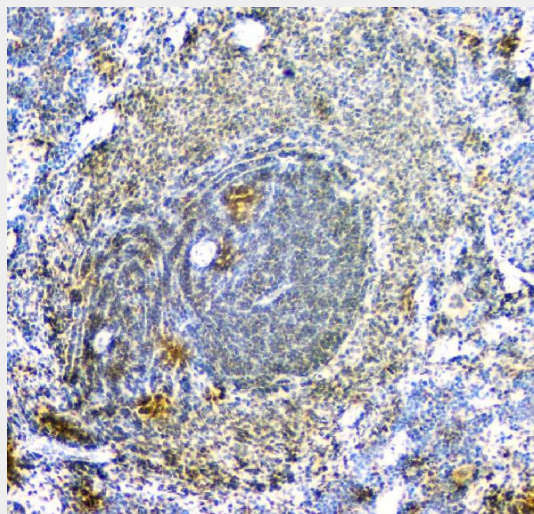


Figure 4. IHC analysis of ARA9/AIP using anti-ARA9/AIP antibody (M02759). ARA9/AIP was detected in paraffin-embedded section of rat spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1  $\mu$ g/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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

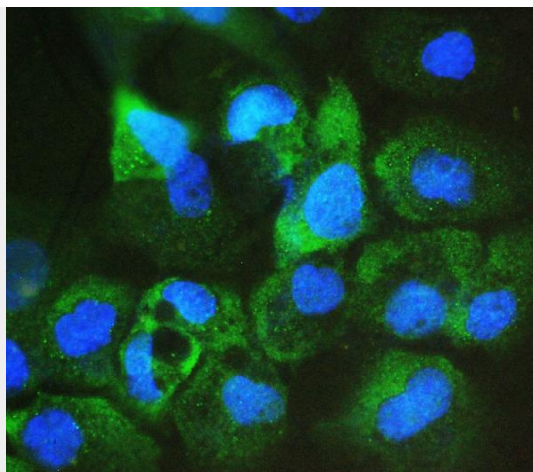


Figure 5. IF analysis of ARA9/AIP using anti-ARA9/AIP antibody (M02759). ARA9/AIP was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2  $\mu\text{g}/\text{mL}$  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.

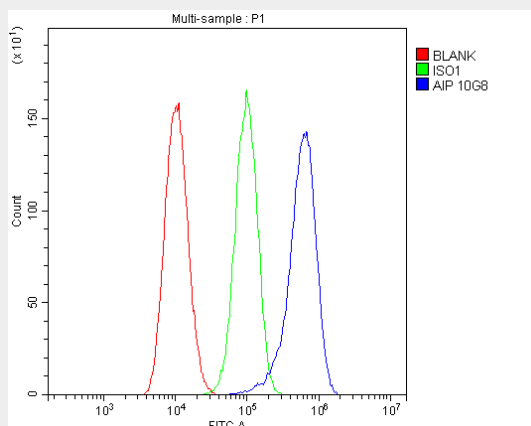


Figure 6. Flow Cytometry analysis of A549 cells using anti-ARA9/AIP antibody (M02759). Overlay histogram showing A549 cells stained with M02759 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-ARA9/AIP Antibody (M02759, 1  $\mu\text{g}/1 \times 10^6$  cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10  $\mu\text{g}/1 \times 10^6$  cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1  $\mu\text{g}/1 \times 10^6$ ) 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).