

Anti-AIMP2/p38 Antibody

Catalog Number: PA1481

About AIMP2

AIMP2, Aminoacyl tRNA synthetase complex-interacting multifunctional protein 2, also known as AIMP2, is an enzyme that in humans is encoded by the AIMP2 gene. AIMP2 encodes a predicted 312-amino acid protein. The AIMP2 gene is located on chromosome 7p22 flanked by two genes, HRI and PMS2. AIMP2 and HRI overlap slightly and are arranged in a tail-to-tail fashion. AIMP2 and PMS2 are separated by approximately 200 base pairs and are arranged head-to-head. AIMP2 is transcribed in the opposite direction compared to HRI and PMS2. AIMP2 is a scaffold required for the assembly and stability of the multi-tRNA synthetase complex. AIMP2 can work as a mediator of TGF-beta signaling and its functional importance in the control of MYC during lung differentiation.

Overview

Product Name	Anti-AIMP2/p38 Antibody
Reactive Species	Human, Mouse, Rat
Description	Rabbit IgG polyclonal antibody for Aminoacyl tRNA synthase complex-interacting multifunctional protein 2(AIMP2) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Storage Instructions	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	Q13155

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human
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	AIMP2/p38(298-320aa NVQRWMRSCENLAPFNTALKLLK), different from the related rat and mouse sequences by three amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross reactivity with other proteins
Isotype	N/A
Form	Lyophilized
Concentration	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry(Paraffin-embedded Section), 0.5-1µg/ml, Human, Rat, Mouse, By Heat Western blot, 0.1-0.5µg/ml, Human, Rat, Mouse
	For protocols please visit https://www.bosterbio.com/protocol-and-troubleshooting/

Anti-AIMP2/p38 Antibody (PA1481) Images

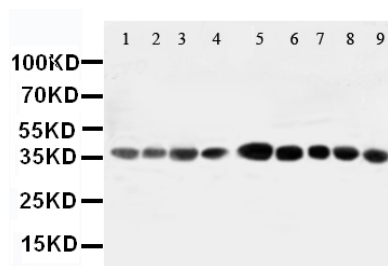


Figure 1. Western blot analysis of AIMP2 using anti-AIMP2 antibody (PA1481).

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: rat liver tissue lysates,
Lane 2: rat lung tissue lysates,
Lane 3: rat kidney tissue lysates,
Lane 4: rat brain tissue lysates,
Lane 5: Jurkat cell lysates,
Lane 6: CEM cell lysates,
Lane 7: HUT cell lysates,
Lane 8: U93T cell lysates,
Lane 9: U93T 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 rabbit anti-AIMP2 antigen affinity purified polyclonal antibody (Catalog # PA1481) 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-rabbit 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 # EK1002) with Tanon 5200 system.

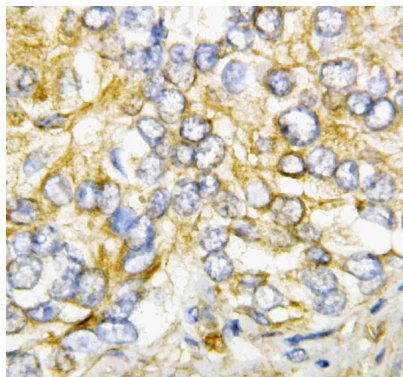


Figure 2. IHC analysis of AIMP2 using anti-AIMP2 antibody (PA1481).

AIMP2 was detected in paraffin-embedded section of human rectal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-AIMP2 Antibody (PA1481) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

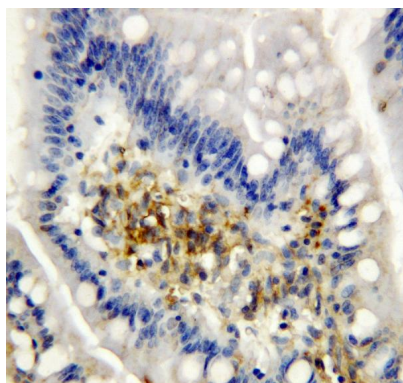


Figure 3. IHC analysis of AIMP2 using anti-AIMP2 antibody (PA1481).

AIMP2 was detected in paraffin-embedded section of rat intestine tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-AIMP2 Antibody (PA1481) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

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