

Anti-FABP4 Antibody

Catalog Number: RP1085

About FABP4

Fatty acid binding proteins (FABPs) are small cytoplasmic proteins that are expressed in a highly tissue-specific manner and bind to fatty acids such as oleic and retinoic acid. Adipocyte fatty-acid-binding protein, aP2 (FABP4) is expressed in adipocytes and macrophages, and integrates inflammatory and metabolic responses. Studies in aP2-deficient mice have shown that this lipid chaperone has a significant role in several aspects of metabolic syndrome, including type 2 diabetes and atherosclerosis. It regulates allergic airway inflammation and may provide a link between fatty acid metabolism and asthma.

Overview

Product Name	Anti-FABP4 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-FABP4 Antibody catalog # RP1085. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	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.
Host	Rabbit
Uniprot ID	P15090

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human FABP4, identical to the related mouse and rat sequences.
Predicted Reactive Species	Hamster
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	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat, Human, By Heat Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

Anti-FABP4 Antibody (RP1085) Images

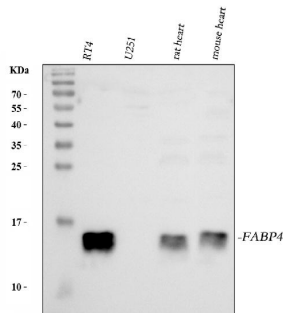


Figure 1. Western blot analysis of FABP4 using anti-FABP4 antibody (RP1085).

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 30 ug of sample under reducing conditions.

Lane 1: human RT4 whole cell lysates,

Lane 2: human U251 whole cell lysates,

Lane 3: rat heart tissue lysates,

Lane 4: mouse heart tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-FABP4 antigen affinity purified polyclonal antibody (Catalog # RP1085) at 0.5 ug/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 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for FABP4 at approximately 15 kDa. The expected band size for FABP4 is at 15 kDa.

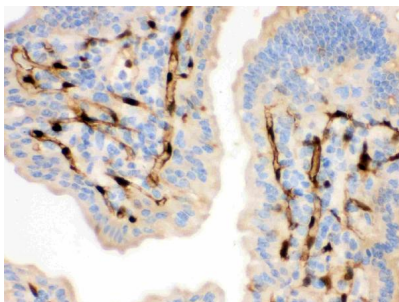


Figure 2. IHC analysis of FABP4 using anti-FABP4 antibody (RP1085).

FABP4 was detected in a paraffin-embedded section of Mouse Intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-FABP4 Antibody (RP1085) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

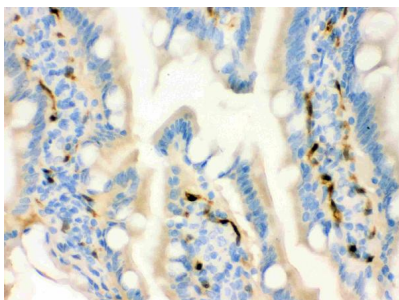


Figure 3. IHC analysis of FABP4 using anti-FABP4 antibody (RP1085).

FABP4 was detected in a paraffin-embedded section of Rat Intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-FABP4 Antibody (RP1085) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

1. PubMed ID: 32018039, Chen G,Wang Q,Li Z,Yang Q,Liu Y,Du Z,Zhang G,Song Y.Circular RNA CDR1as promotes adipogenic and suppresses osteogenic differentiation of BMSCs in steroid-induced osteonecrosis of the femoral head.Bone.2020 Apr;133:115258.doi:10.1016/j.bone.2020.115258.Epu

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