10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-FABP4 Antibody Picoband™ (monoclonal, 10E12)

Catalog # ABO15089

Specification

Anti-FABP4 Antibody Picoband™ (monoclonal, 10E12) - Product Information

Application	**WB, IHC**
Primary Accession	P15090
Host	**Mouse**
Isotype	**Mouse IgG1**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-FABP4 Antibody Picoband™ (monoclonal, 10E12) . Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.

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

Anti-FABP4 Antibody Picoband™ (monoclonal, 10E12) - Additional Information

Gene ID 2167

Other Names
Fatty acid-binding protein, adipocyte, Adipocyte lipid-binding protein, ALBP, Adipocyte-type fatty acid-binding protein, A-FABP, AFABP, Fatty acid-binding protein 4, FABP4

Calculated MW
15 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat
 Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human, Mouse, Rat

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

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human FABP4, identical to the related mouse and rat sequences.

Purification
Immunogen affinity purified.

Storage	**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 freezing and thawing.**

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Anti-FABP4 Antibody Picoband™ (monoclonal, 10E12) - Protein Information

Name FABP4

Function
Lipid transport protein in adipocytes. Binds both long chain fatty acids and retinoic acid. Delivers long-chain fatty acids and retinoic acid to their cognate receptors in the nucleus.

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:P04117}. Nucleus {ECO:0000250|UniProtKB:P04117}. Note=Depending on the nature of the ligand, a conformation change exposes a nuclear localization motif and the protein is transported into the nucleus. Subject to constitutive nuclear export. {ECO:0000250|UniProtKB:P04117}

Anti-FABP4 Antibody Picoband™ (monoclonal, 10E12) - 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-FABP4 Antibody Picoband™ (monoclonal, 10E12) - Images

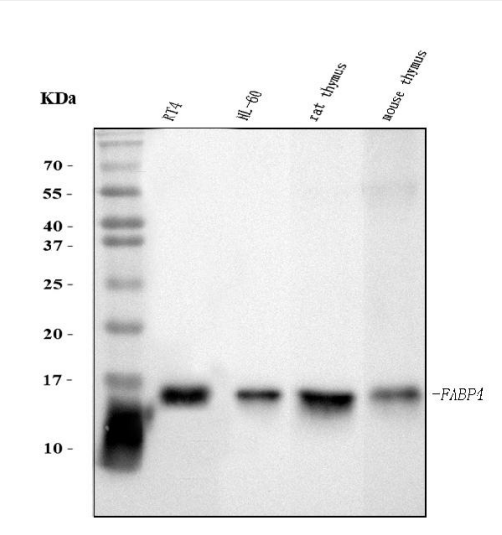

Figure 1. Western blot analysis of FABP4 using anti-FABP4 antibody (M01528-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human RT4 whole cell lysates,
Lane 2: human HL-60 whole cell lysates,

Lane 3: rat thymus tissue lysates,
Lane 4: mouse thymus 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 mouse anti-FABP4 antigen affinity purified monoclonal antibody (Catalog # M01528-2) 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 FABP4 at approximately 15 kDa. The expected band size for FABP4 is at 15 kDa.

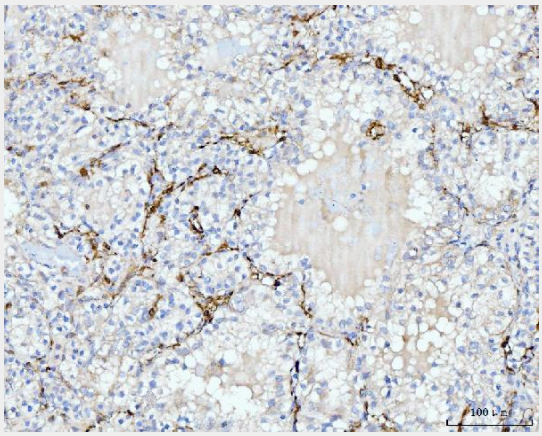

Figure 2. IHC analysis of FABP4 using anti-FABP4 antibody (M01528-2).
FABP4 was detected in a paraffin-embedded section of human renal clear cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-FABP4 Antibody (M01528-2) 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.

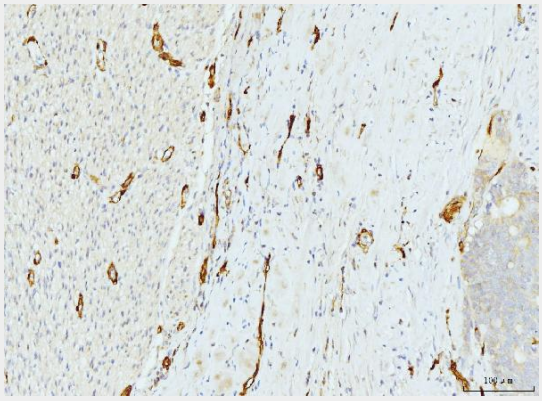

Figure 3. IHC analysis of FABP4 using anti-FABP4 antibody (M01528-2).
FABP4 was detected in a paraffin-embedded section of human gall bladder adenosquamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-FABP4 Antibody (M01528-2) 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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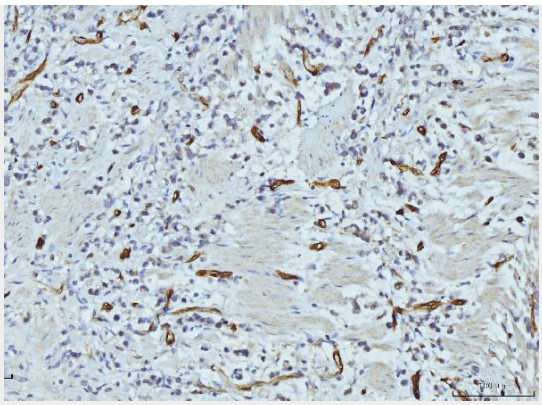

Figure 4. IHC analysis of FABP4 using anti-FABP4 antibody (M01528-2).
FABP4 was detected in a paraffin-embedded section of human gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-FABP4 Antibody (M01528-2) 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.

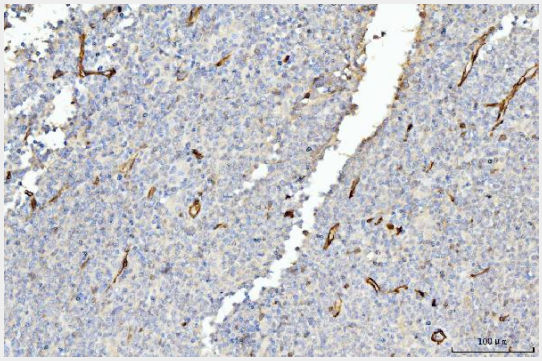

Figure 5. IHC analysis of FABP4 using anti-FABP4 antibody (M01528-2).
FABP4 was detected in a paraffin-embedded section of human lymphadenoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-FABP4 Antibody (M01528-2) 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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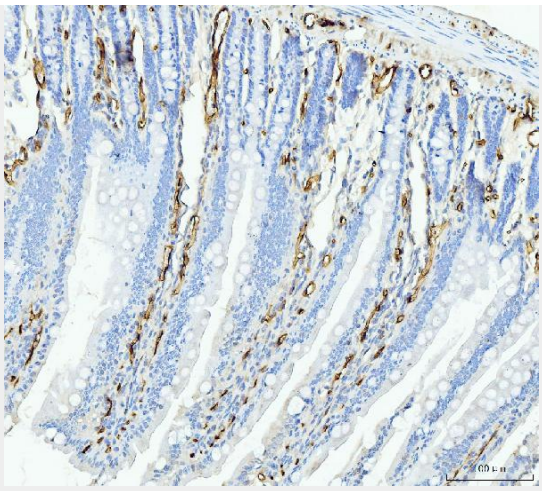

Figure 6. IHC analysis of FABP4 using anti-FABP4 antibody (M01528-2).
FABP4 was detected in a paraffin-embedded section of rat intestines tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-FABP4 Antibody (M01528-2) 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.

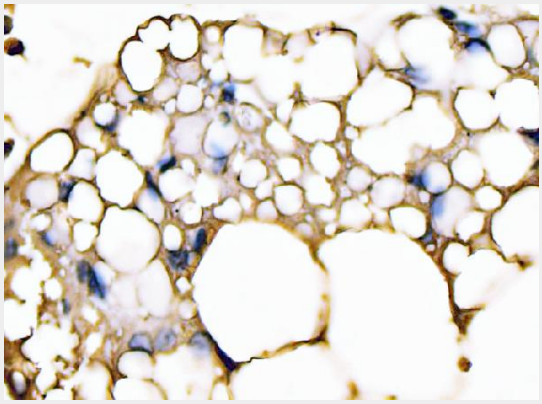

Figure 7. IHC analysis of FABP4 using anti-FABP4 antibody (M01528-2).
FABP4 was detected in a paraffin-embedded section of mouse intestines tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-FABP4 Antibody (M01528-2) 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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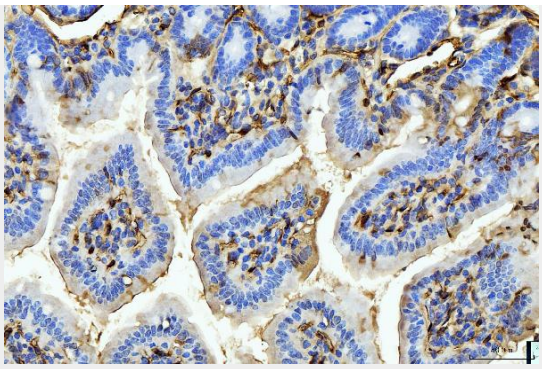

Figure 8. IHC analysis of FABP4 using anti-FABP4 antibody (M01528-2).
FABP4 was detected in a paraffin-embedded section of mouse intestines tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-FABP4 Antibody (M01528-2) 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.

Anti-FABP4 Antibody Picoband™ (monoclonal, 10E12) - Background

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.