



Adipocyte Fatty Acid Binding Protein Human, Rabbit Polyclonal Antibody

Product Data Sheet

Source of Antigen: *E. coli*

Host: Rabbit

Cat. No.:

RD181037050 (0.05 mg)

Other names: Adipocyte-type fatty acid-binding protein, A-FABP, Fatty acid-binding protein 4, Adipocyte lipid-binding protein, ALBP, FABP4

Research topic

Animal studies, Diabetology - Other Relevant Products, Energy metabolism and body weight regulation

Preparation

The antibody was raised in rabbits by immunization with the recombinant Human FABP4.

Amino Acid Sequence

The immunization antigen (14.7 kDa) is a protein containing 131 AA of recombinant Human FABP4 and one extra AA, N-terminal methionin (highlighted).

MCDAFVG**T**WK LVSS**E**N**F**DDY MKEVG**V**GFAT RKVAG**M**AKPN MIIS**V**NGD**V**I TIKSE**S**TFKN TEIS**F**ILG**Q**E FDE**V**TAD**R**KK
VKSTIT**L**DGG VLVH**V**Q**K**WDG KSTTI**K**R**K**RE DDKLV**V**EC**V**M KGV**T**STR**V**Y**E** R**A**

Species Reactivity

Human

Not yet tested in other species.

Purification Method

Immunoaffinity chromatography on a column with immobilized recombinant Human FABP4.

Antibody Content

0.05 mg (determined by BCA method, BSA was used as a standard)

Formulation

The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. **AZIDE FREE.**

Reconstitution

Add 0.05 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage/Stability

The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

Expiration

See vial label.

Lot Number

See vial label.

Quality Control Test

Indirect ELISA - to determine titer of the antibody

SDS PAGE - to determine purity of the antibody

Applications

Immunohistochemistry, Western blotting

Introduction to the Molecule

Adipocyte fatty acid binding protein (AFABP) is a 15 kDa member of the intracellular fatty acid binding protein (FABP) family, which is known for the ability to bind fatty acids and related compounds in an internal cavity. AFABP is expressed in a differentiation-dependent fashion in adipocytes and is a critical gene in the regulation of the biological function of these cells. In mice, targeted mutations in AFABP provide significant protection from hyperinsulinemia and insulin resistance in the context of both dietary and genetic obesity. Adipocytes obtained from AFABP-deficient mice also have reduced efficiency of lipolysis in vitro and in vivo. Such mice exhibit moderately improved systemic dyslipidemia. AFABP expression occurs in macrophages upon differentiation and activation. In such cells, AFABP modulates inflammatory responses and cholesterol ester accumulation. Total or macrophage-specific AFABP deficiency confers dramatic protection against atherosclerosis in the apoE^{-/-} mice. AFABP has a central role in the development of major components of the metabolic syndrome due to its distinct actions in adipocytes and macrophages.

References to this Product

- Xu A, Wang Y, Xu JY, Stejskal D, Tam S, Zhang J, Wat NM, Wong WK, Lam KS. *Adipocyte fatty acid-binding protein is a plasma biomarker closely associated with obesity and metabolic syndrome.* [Clin Chem](#). Mar;52(3):405-13 (2006)

Note

This product is for research use only.