



Product Datasheet

Product Name	Fatty Acid Binding Protein 4 Human Recombinant
Cata No	CB501037
Source	<i>Escherichia Coli.</i>
Synonyms	Fatty acid-binding protein adipocyte, AFABP, Fatty acid-binding protein 4, Adipocyte lipid-binding protein, ALBP, A-FABP, FABP4.

Description

Adipocyte fatty acid binding protein FABP4 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 (bile acids or retinoids) in an internal cavity. FABP4 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 FABP4 provide significant protection from hyperinsulinemia and insulin resistance in the context of both dietary and genetic obesity. Adipocytes obtained from FABP4-deficient mice also have reduced efficiency of lipolysis in vitro and in vivo, and these mice exhibited moderately improved systemic dyslipidemia. Recent studies also demonstrated FABP4 expression in macrophages upon differentiation and activation. In these cells, FABP4 modulates inflammatory responses and cholesterol ester accumulation, and total or macrophage-specific FABP4 deficiency confers dramatic protection against atherosclerosis in the *apoE*^{-/-} mice. These results indicate a central role for FABP4 in the development of major components of the metabolic syndrome through its distinct actions in adipocytes and macrophages.

14.7 kDa protein containing 132 amino acid residues.

MCDAFVGTWK LVSSNFDDY MKEVGVGFAT
RKVAGMAKPN MIISVNGDVI TIKSESTFKN

TEISFILGQE FDEVTADDRK
VKSTITLDGG VLVHVQKWDG KSTTIKRRKRE
DDKLVVECV M KGV TSTRVYE RA

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Purity

Greater than 90% as determined by SDS-PAGE.

Formulation

Sterile filtered and lyophilized from 0.5 mg/ml in 0.05M Acetate buffer pH4.

Reconstitution

0.1M Acetate buffer pH4 and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10µg/ml. In higher concentrations the solubility of this antigen is limited.

Stability

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to **avoid repeated freezing/thawing cycles**. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C. The lyophilized protein remains stable until the expiry date when stored at -20°C.

Applications

Western blotting, ELISA

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