
Product Data Sheet

Product Name: FABP4 Human

Cat. No.: GP23453

Batch No.: 1

Product Data

| | | | |
|---------------------|---|--------------------|-----------------------|
| Purity | >98% | Source | Human Adipose Tissue. |
| Physical Appearance | solid | Shipping Condition | Shipped at Room temp. |
| Synonyms | Fatty acid-binding protein adipocyte; AFABP; Fatty acid-binding protein 4; Adipocyte lipid-binding protein; ALBP; A-FABP; FABP4. | | |
| Amino Acid Sequence | CDAFVGTWKL VSSNFDDYM KEVGVGFATR KVAGMAKPNM IISVNGDVIT IKSESTFKNT EISFILGQEF DEVTADDRKV KSTITLDGGV LVHVQKWDGK STTIK RKRED DKLVVECVMK GVTSTRVYER A. | | |
| Solubility | It is recommended to add deionized water to prepare a working stock solution of approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture. | | |
| Formulation | FABP4 protein filtered (0.4 μ m) and lyophilized in 0.5mg/ml in 0.05M phosphate buffer and 0.075M NaCl, pH 6.5. | | |

Introduction

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 IR 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

Caution: Product has not been fully validated for medical applications. For research use only.

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indicate a central role for FABP4 in the development of major components of the metabolic syndrome through its distinct actions in adipocytes and macrophages.

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 .

Background

The Human FABP4 produced from Human Adipose Tissue has a molecular mass of 14.587kDa (calculated without glycosylation) containing 131 amino acid residues.

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