

32-3795: FABP4 Native Protein

Alternative Name : Fatty acid-binding protein adipocyte, AFABP, Fatty acid-binding protein 4, Adipocyte lipid-binding protein, ALBP, A-FABP, FABP4.

Description

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

Product Info

Amount :	10 µg
Purification :	Greater than 85.0% as determined by SDS-PAGE.
Content :	FABP4 protein filtered (0.4µm) and lyophilized in 0.5 mg/ml in 0.05M phosphate buffer and 0.075M NaCl, pH 6.5.
Storage condition :	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.
Amino Acid :	CDAFVG TWKL VSENFDDYM KEVG VGFATR KVAGMAKPNM IISVNGDVIT IKSESTFKNT EISFILGQEF DEVTADDRKV KSTITLDGGV LVHVQKWDGK STTIK RKRED DKLVVECVMK GVTSTRVYER A.

Application Note

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.

