Recombinant Mouse FABP5 protein (His Tag)

Catalog Number: PDEM100252

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

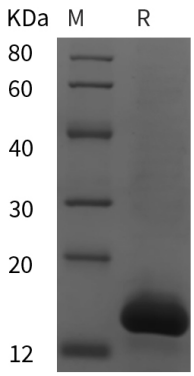
Description

Species	Mouse
Source	E.coli-derived Mouse FABP5 protein Ala2-Gln135, with an N-terminal His
Calculated MW	14.6 kDa
Observed MW	16 kDa
Accession	Q05816
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Fatty acid binding proteins (FABP) are small cytoplasmic lipid binding proteins that are expressed in a tissue specific manner and are involved in intracellular lipid transport. All FABPs bind free fatty acids, cholesterol, and retinoids, which differ in their selectivity, affinity and binding mechanism. Circulating FABP levels are used as indicators of tissue damage. Some FABP polymorphisms have been associated with disorders of lipid metabolism and the development of atherosclerosis. FABPs are structurally conserved, consisting of a water-filled, ligand-binding pocket surrounded by ten anti-parallel beta-barrel structures, capped by an N-terminal helix-turn-helix motif. The helical N-terminus is involved in the regulation of FA transfer from membranes. FABP5, also known as epidermal fatty acid binding protein (E-FABP), is highly expressed in epidermal cells, but also in a plethora of other tissues, including mammary gland, brain, liver, kidney, lung, adipocytes, macrophages, tongue and testis. It is associated with keratinocytes and adipocytes and is suggested to promote fatty acid availability to enzymes, protect cell structures from fatty acid attack, and target fatty acids to nuclear transcription factors. The amino acid sequence of human FABP5 is 80%, 81% and 92% identical to that of mouse, rat and bovine FABP5, respectively.