

Recombinant Murine Fatty-acid-binding Protein 1

#R00579

Size: 5 µg/100 µg/500 µg

Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
 - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
 - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

The fatty-acid-binding proteins (FABPs) are a family of carrier proteins for fatty acids and other lipophilic substances such as eicosanoids and retinoids. These proteins are thought to facilitate the transfer of fatty acids between extra- and intracellular membranes. Fatty acid-binding protein 1 (FABP1) encoded by the FABP1 gene, also known as liver-type fatty acid-binding protein (L-FABP), is a member of FABP family and it is a small, highly conserved, cytoplasmic proteins. In addition, FABP1 binds free fatty acids and their coenzyme A derivatives, bilirubin, and some other small molecules in the cytoplasm. Furthermore, it may be involved in intracellular lipid transport. Through amino acid sequence comparison, murine FABP1 shares 84 % and 94 % a.a. sequence identity with human and rat FABP1.

AA Sequence

MNFSGKYQLQSQENFEPFMKAIGLPEDLIQKGKDIKG
VSEIVHEGKKIKLTITYGPKVVRNEFTLGEECELETMT
GEKVKAVVKLEGDNKMVTTFKGIKSVTELNQDITNT
MTLGDIVYKRVSKRI

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	14 kDa Selenium-binding Protein, Fatty Acid-binding Protein 1, L-FABP
Accession	P12710
GeneID	14080
Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 14.2 kDa, a single non-glycosylated polypeptide chain containing 127 amino acids.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The binding affinity of rMuFABP1 for the synthetic ligand cis-parinaric acid has been measured by

fluorescence titration. Half maximal fluorescence of 2.5 μ M rMuFABP1 is achieved with approximately 5 μ M cis-paranaric acid.

Physical Appearance Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4, 2 % trehalose.

Endotoxin Less than 1 EU/ μ g of rMuFABP1 as determined by LAL method.
