Datasheet

Cat. No. P1638

Recombinant Murine Fatty-acid-binding Protein 1

Information

Gene ID	14080
Accession #	P12710
Alternate Names	14 kDa Selenium-binding Protein, Fatty Acid-binding Protein 1, L-FABP
Source	Escherichia coli.
M.Wt	Approximately 14.2 kDa, a single non-glycosylated polypeptide chain containing 127 amino acids.
AA Sequence	MNFSGKYQLQ SQENFEPFMK AIGLPEDLIQ KGKDIKGVSE IVHEGKKIKL TITYGPKVVR NEFTLGEECE LETMTGEKVK AVVKLEGDNK MVTTFKGIKS VTELNGDTIT NTMTLGDIVY KRVSKRI
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4, 2 % trehalose.
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.
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 μM rMuFABP1 is achieved with approximately 5 μM cis-paranaric acid.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5μg	100μg	500μg
Recombinant Murine Fatty-acid-binding Protein 1	5μg	100μg	500μg

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

Quality Control

Purity	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuFABP1 as determined by LAL method.

Description

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.

Reference

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4. Weickert MO, Loeffelholz CV, Roden M, et al. 2007. Am J Physiol Endocrinol Metab. 293:E1078-84
5. Bassuk JA, Tsichlis PN, Sorof S. 1987. Proc Natl Acad Sci U S A. 84:7547-51
6. He Y, Yang X, Wang H, et al. 2007. Biochemistry. 46:12543-56.

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