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Recombinant Human
Fatty Acid Binding Protein 3 (FABP3)

Catalog No.	Size	Species	Protein Accession No.
230-00037	10, 50, 100 µg	Human	P05413

Synonyms

Fatty acid binding protein 3, muscle and heart (mammary-derived growth inhibitor); FABP3; H-FABP; MDGI; O-FABP.

Description

The fatty-acid binding protein 3 (FABP3) is one member of carrier protein family for fatty acids and other lipophilic substances. FABP3 plays an important role in the intracellular transport of long-chain fatty acids and their acyl-CoA esters between extra- and intracellular membranes. In addition to maintain the levels of cellular membrane fatty acids, FABP family members are found to function in the modulation of cell growth and differentiation and in the modulation of specific enzymes of lipid metabolic pathways.

Source

Recombinant protein, purified from *E. coli*.

Preparation

The gene encoding the full length of human FABP3 protein was cloned and expressed in *Escherichia coli*. The recombinant FABP3 protein was purified by proprietary chromatographic techniques.

Predicted Molecular Mass

~15 kDa.

Purity

>95%, determined by SDS-PAGE and stained with Commassie blue (*See image on the right*).

Formulation & Reconstitution

- Fine white powder, lyophilized.
- Recombinant FABP3 was lyophilized from a 0.2 µm filtered solution of 40 mM Tris-HCl (pH 8.2) and 50 mM NaCl with a protein concentration of 1.2 mg/mL.
- It is recommended to briefly spin the vial prior to opening, bring the contents to the bottom, and reconstitute the lyophilized product with sterile 18 MΩ-cm deionized water or your desired buffer, but avoiding the neutral pH buffer since the approximate isoelectric point (pI) of FABP3 is 7.2.

Stability & Storage

- Lyophilized product is stable at room temperature for 3 weeks, it is recommended to be stored desiccated below -20°C in a manual defrost freezer.
- Upon reconstituted, the protein should be stored at 4°C for one week. For long term storage, it is recommended to add a carrier protein (0.1% HSA or BSA) and store at -20 or -80°C. **Please avoid repeated freeze-thaw cycles.**

References

1. Boerchers T., et al. (1990) Revision of the amino acid sequence of human heart fatty acid-binding protein. Mol. Cell. Biochem. 98:127-133
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3. Weisiger RA. (2002) Cytosolic fatty acid binding proteins catalyze two distinct steps in intracellular transport of their ligands. Mol. Cell. Biochem. 239 (1-2): 35–43.
4. Tan NS, et al. (2002) Selective cooperation between fatty acid binding proteins and peroxisome proliferator-activated receptors in regulating transcription. Mol. Cell. Biol. 22 (14): 5114–27.
5. Chmurzyńska A. (2006) The multigene family of fatty acid-binding proteins (FABPs): function, structure and polymorphism. J. Appl. Genet. 47 (1): 39–48.