Recombinant Human FABP8/M-FABP

Catalog Number: 9487-CL

DESCRIPTION

Source	*E. coli*-derived Ser2-Val132, with a C-terminal 6-His tag Accession # P02689
N-terminal Sequence Analysis	Ser2
Predicted Molecular Mass	16 kDa

SPECIFICATIONS

SDS-PAGE	16 kDa, reducing conditons
Activity	Bioassay data are not available.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in Sodium Acetate. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 1 mg/mL in water.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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.

DATA

Bioactivity not tested

The Innovator Series. R&D Systems proteins are almost always sold with a bioassay to indicate activity. However, we recognize that sometimes proteins might be novel, and their bioactivity may not be well understood. In addition, some researchers may wish to use polypeptides to make antibodies. To facilitate the advancement of new science, we now offer our Innovator Series of proteins.

BACKGROUND

Fatty acid binding protein-8 (FABP8; also named Peripheral myelin protein 2, M- (myelin) FABP, Myelin P2 Protein, MP2, or P2) is a member of a large superfamily of lipid binding proteins that are expressed in a tissue specific manner (1, 8, 9). FABP-8 is one of ten cytoplasmic FABPs that are 14-15 kDa in size and range from 126-140 amino acids (aa) in length (1, 2, 3). Although all are highly conserved in their tertiary structure, there is only modest aa identity between any two members. The FABP family members are subdivided based on organ or tissue type it was originally expressed or identified; liver- (L-FABP), intestine- (I-FABP), heart- (H-FABP), adipocyte- (A-FABP), epidermal- (E-FABP), ileal- (Il-FABP), brain- (B-FABP), myelin- (M-FABP) and testis-FABP (T-FABP) (1). Human M-FABP, the product of the PMP2 gene, is a 131 aa cytosolic protein that shows a flattened beta -barrel structure generated by a series of antiparallel beta -strands and two alpha -helices (4, 7, 10). One molecule of FABP-8 is capable of binding one long-chain fatty acid (1, 5, 6). It is suggested that ligands first bind to the outside of the molecule, and this binding subsequently induces a conformational change in the binding protein, resulting in "internalization" of the ligand (5, 6, 7). Human FABP-8 is 87%, 92% and 83% aa identical to mouse, bovine and horse FABP-8, respectively. It also shows 26% and 30% aa identity to human L-FABP and I-FABP, respectively.

References:

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