

# PRODUCT INFORMATION



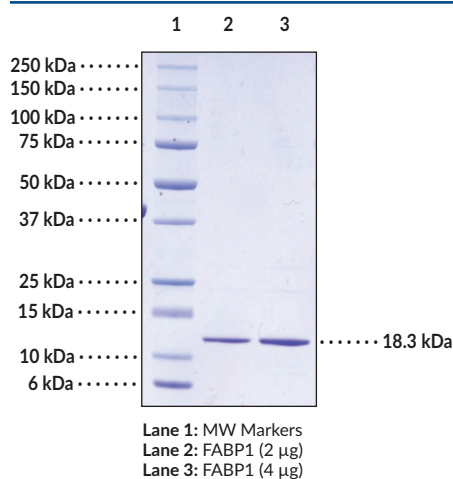
## FABP1 (rat recombinant)

Item No. 10005200

### Overview and Properties

**Synonyms:** Fatty Acid Binding Protein 1, L-FABP, Liver-FABP, Liver-Fatty Acid Binding Protein  
**Source:** Recombinant N-terminal hexahistidine-tagged protein expressed in *E. coli*  
**Molecular Weight:** 18.3 kDa  
**Storage:** -80°C (as supplied)  
**Stability:** ≥1 year  
**Purity:** ≥90% estimated by SDS-PAGE  
**Supplied in:** 50 mM of sodium phosphate, pH 7.2, with 20% glycerol and 150 mM sodium chloride  
*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Images



SDS-PAGE Analysis of FABP1.

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Fatty acid binding protein 1 (FABP1) is one of nine known cytosolic FABPs ranging in size from 14-15 kDa containing 127-132 amino acids.<sup>1</sup> Members of this protein family exhibit high affinity for small lipophilic ligands and were named according to the tissue from which they were initially isolated.<sup>1</sup> Studies suggest that FABPs are involved in the uptake and metabolism of fatty acids, in the maintenance of cellular membrane fatty acid levels, in intracellular trafficking of these substrates, in the modulation of specific enzymes of lipid metabolic pathways, and in the modulation of cell growth and differentiation.<sup>2</sup> FABP family members have highly conserved three dimensional structures and 22-73% amino acid sequence similarity. FABP1 is composed of ten antiparallel  $\beta$  strands that form a barrel. It has a bigger binding pocket than the other FABPs allowing it to accommodate two fatty acids. Expression of FABP1 is decreased in hepatoblastoma and hepatocellular carcinoma making the protein a potential tumor marker. Moreover, studies have suggested FABP1 as a potential biomarker for both liver and kidney injury.<sup>1</sup>

## References

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1. Zimmerman, A.W. and Veerkamp, J.H. New insights into the structure and function of fatty acid-binding proteins. *Cell. Mol. Life Sci.* **59**, 1096-1116 (2002).
2. Massolini, G. and Calleri, E. Survey of binding properties of fatty acid-binding proteins chromatographic methods. *J. Chromatogr. B* **797**, 255-268 (2003).

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