

Product Information

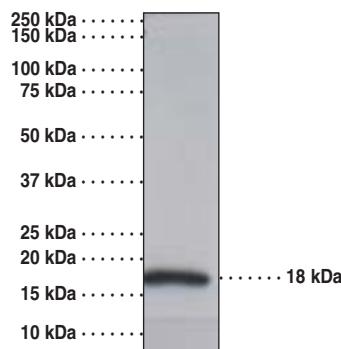


FABP4 (mouse recombinant) Western Ready Control

Item No. 10009676

Synonyms:	A-FABP, ALBP, Adipocyte-FABP, Fatty Acid Binding Protein 4
Source:	Mouse recombinant hexahistidine-tagged protein expressed in <i>E. Coli</i>
M_r:	18 kDa (as provided), 15 kDa (native)
Purity:	Whole cell lysate; a single band is detected on a western blot when probed with Cayman's FABP4 Polyclonal Antibody (Item No. 10004944)
Supplied in:	Laemmli buffer (2% SDS, 10% glycerol, 62.5 mM Tris-HCl, pH 6.8, 5% 2-mercaptoethanol, bromophenol blue)
Stability:	≥2 years at -20°C
Applications:	Positive control for western blotting

Fatty acid binding protein 4 (FABP4) is one of nine known cytosolic FABPs ranging in size from 14-15 kDa containing 127-132 amino acids.¹ 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.¹ 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.² Studies using FABP4 gene deletion in mice indicate a dominant role for FABP4 in several chronic metabolic diseases. Therefore, inhibiting the function of FABP4 is a potential mechanism for the treatment of metabolic diseases like diabetes and atherosclerosis.^{3,4}



Western blot of mouse recombinant FABP4 probed with Cayman Chemical's FABP4 Polyclonal Antibody (Item No. 10004944).

Laboratory Procedures

Western Ready Controls are designed to serve as positive controls on western blots. This FABP4 Western Ready Control is supplied pre-boiled in 55 µl of Laemmli buffer. To use, thaw and load 10 µl of FABP4 Western Ready Control per well and follow a standard western blotting protocol. The amount needed per well will depend on the antibody and detection system used. Due to the presence of the 6X His-tag on the FABP4 provided in this control, the protein will migrate as a band ~3 kDa higher than the native, non-tagged protein.

References

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).
3. Furuhashi, M., Tuncman, G., Görgün, C.Z., *et al.* Treatment of diabetes and atherosclerosis by inhibiting fatty-acid-binding protein aP2. *Nature* **447**, 959-965 (2007).
4. Boord, J.B., Maeda, K., Makowski, L., *et al.* Adipocyte fatty acid-binding protein, aP2, alters late atherosclerotic lesion formation in severe hypercholesterolemia. *Arterioscler. Thromb. Vasc. Biol.* **22**, 1686-1691 (2002).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10009676

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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