



Biological characterization of liver fatty acid binding gene from miniature pig liver cDNA library

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ABSTRACT. Liver fatty acid binding proteins (L-FABP) are a family of small, highly conserved, cytoplasmic proteins that bind to long-chain fatty acids and other hydrophobic ligands. In this study, a full-length enriched cDNA library was successfully constructed from Wuzhishan miniature pig, and then the L-FABP gene was cloned from this cDNA library and an expression vector (pEGFP-N3-L-FABP) was constructed *in vitro*. This vector was transfected into hepatocytes to test its function. The results of western blotting analysis demonstrated that the L-FABP gene from our full-length enriched cDNA library regulated downstream genes, including the peroxisome proliferator-activated receptor family in hepatocytes. This study provides a theoretical basis and experimental evidence for the application of L-FABP for the treatment of liver injury.

Key words: cDNA library; Hepatocytes; Liver fatty acid binding proteins; Wuzhishan miniature pig