Gene synthesis, expression in Escherichia coli, purification and characterization of the recombinant bovine acyl-CoA-binding protein

DOI: 10.1042/bj2760817
Biochemical Journal, 1991, 276 (Pt 3), 817-23.

#	Paper	IF	Citations
62	The secondary structure in solution of acyl-coenzyme A binding protein from bovine liver using 1H nuclear magnetic resonance spectroscopy. *Biochemistry*, **1991**, 30, 10654-63	3.2	28
61	Acyl-CoA-binding and transport, an alternative function for diazepam binding inhibitor (DBI), which is identical with acyl-CoA-binding protein. *Neuropharmacology*, **1991**, 30, 1405-10	5.5	30
60	Induction of acyl-CoA-binding protein and its mRNA in 3T3-L1 cells by insulin during preadipocyte-to-adipocyte differentiation. *Biochemical Journal*, **1991**, 277 (Pt 2), 341-4	3.8	51
59	A fast and versatile method for extraction and quantitation of long-chain acyl-CoA esters from tissue: content of individual long-chain acyl-CoA esters in various tissues from fed rat. *Analytical Biochemistry*, **1992**, 207, 63-7	3.1	47
58	Electrospray mass spectrometry characterization of post-translational modifications of barley alpha-amylase 1 produced in yeast. *Nature Biotechnology*, **1993**, 11, 1162-5	44.5	18
57	Characterization of ligand binding to acyl-CoA-binding protein. *Biochemical Journal*, **1993**, 290 (Pt 2), 321-6	3.8	152
56	Effect of heterologous expression of acyl-CoA-binding protein on acyl-CoA level and composition in yeast. *Biochemical Journal*, **1993**, 290 (Pt 2), 369-74	3.8	92
55	Interaction of acyl-CoA binding protein (ACBP) on processes for which acyl-CoA is a substrate, product or inhibitor. *Biochemical Journal*, **1993**, 292 (Pt 3), 907-13	3.8	173
54	A hydroxyproline-containing class IV chitinase of sugar beet is glycosylated with xylose. *Plant Molecular Biology*, **1994**, 25, 241-57	4.6	44
53	Yeast acyl-CoA-binding protein: acyl-CoA-binding affinity and effect on intracellular acyl-CoA pool size. *Biochemical Journal*, **1994**, 302 (Pt 2), 479-85	3.8	90
52	Acyl-CoA-binding protein (ACBP) can mediate intermembrane acyl-CoA transport and donate acyl-CoA for beta-oxidation and glycerolipid synthesis. *Biochemical Journal*, **1994**, 299 (Pt 1), 165-70	3.8	191
51	Purification and characterization of a cadmium-induced metallothionein from the shore crab Carcinus maenas (L.). *Biochemical Journal*, **1994**, 297 (Pt 3), 609-14	3.8	74
50	Fatty acyl-CoA oxidase activity is induced before long-chain acyl-CoA hydrolase activity and acyl-CoA binding protein in liver of rat treated with peroxisome proliferating 3-thia fatty acids. *Xenobiotica*, **1995**, 25, 1181-94	2	17
49	Evaluation of mass spectrometric techniques for characterization of engineered proteins. *Molecular Biotechnology*, **1995**, 4, 1-12	3	14
48	Thermodynamics of ligand binding to acyl-coenzyme A binding protein studied by titration calorimetry. *Biochemistry*, **1996**, 35, 14118-26	3.2	125
47	Probing the Nature of Noncovalent Interactions by Mass Spectrometry. A Study of Protein□CoA Ligand Binding and Assembly. *Journal of the American Chemical Society*, **1996**, 118, 8646-8653	16.4	285
46	Acyl-CoA binding proteins inhibit the nonenzymic S-acylation of cysteinyl-containing peptide sequences by long-chain acyl-CoAs. *Biochemistry*, **1997**, 36, 5546-53	3.2	42

45	Lipid metabolism in the lactating mammary gland. *Lipids and Lipid Metabolism*, **1997**, 1347, 101-26		180
44	Combining MALDI mass spectrometry and biomolecular interaction analysis using a biomolecular interaction analysis instrument. *Analytical Chemistry*, **1998**, 70, 2731-6	7.8	106
43	Structure and function of normal and transformed murine acyl-CoA binding proteins. *Archives of Biochemistry and Biophysics*, **1998**, 350, 201-13	4.1	41
42	Fatty acyl-CoA binding domain of the transcription factor FadR. Characterization by deletion, affinity labeling, and isothermal titration calorimetry. *Journal of Biological Chemistry*, **1998**, 273, 33652-9	5.4	51
41	Evidence for triacylglycerol synthesis in the lumen of microsomes via a lipolysis-esterification pathway involving carnitine acyltransferases. *Journal of Biological Chemistry*, **1999**, 274, 35577-82	5.4	45
40	The formation of a native-like structure containing eight conserved hydrophobic residues is rate limiting in two-state protein folding of ACBP. *Nature Structural Biology*, **1999**, 6, 594-601		120
39	Conserved residues and their role in the structure, function, and stability of acyl-coenzyme A binding protein. *Biochemistry*, **1999**, 38, 2386-94	3.2	59
38	Formation of hydrogen bonds precedes the rate-limiting formation of persistent structure in the folding of ACBP. *Journal of Molecular Biology*, **2000**, 301, 1307-14	6.5	28
37	Differential effects of acyl-CoA binding protein on enzymatic and non-enzymatic thioacylation of protein and peptide substrates. *Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids*, **2000**, 1485, 185-98	5	35
36	Binding site differences revealed by crystal structures of Plasmodium falciparum and bovine acyl-CoA binding protein. *Journal of Molecular Biology*, **2001**, 309, 181-92	6.5	49
35	The interaction of acyl-CoA with acyl-CoA binding protein and carnitine palmitoyltransferase I. *International Journal of Biochemistry and Cell Biology*, **2001**, 33, 807-15	5.6	31
34	Early kinetic intermediate in the folding of acyl-CoA binding protein detected by fluorescence labeling and ultrarapid mixing. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 9807-12	11.5	89
33	Acyl-CoA binding protein expression is fiber type- specific and elevated in muscles from the obese insulin-resistant Zucker rat. *Diabetes*, **2002**, 51, 449-54	0.9	39
32	Fluorescently labelled bovine acyl-CoA-binding protein acting as an acyl-CoA sensor: interaction with CoA and acyl-CoA esters and its use in measuring free acyl-CoA esters and non-esterified fatty acids. *Biochemical Journal*, **2002**, 365, 165-72	3.8	20
31	Transient intermediary states with high and low folding probabilities in the apparent two-state folding equilibrium of ACBP at low pH. *Journal of Molecular Biology*, **2002**, 318, 805-14	6.5	34
30	Optical characterization of armadillo acyl-CoA binding protein. *International Journal of Biological Macromolecules*, **2002**, 31, 19-27	7.9	4
29	Acyl-coenzyme A binding protein expression is fibre-type specific in rat skeletal muscle but not affected by moderate endurance training. *Pflugers Archiv European Journal of Physiology*, **2002**, 443, 387-93	4.6	7
28	Acyl-coenzyme A organizes laterally in membranes and is recognized specifically by acyl-coenzyme A binding protein. *FEBS Letters*, **2003**, 552, 253-8	3.8	21

27	Improvement of hydrogen bond geometry in protein NMR structures by residual dipolar couplings--an assessment of the interrelation of NMR restraints. *Journal of Biomolecular NMR*, **2004**, 28, 31-41	3	3
26	Short-range, long-range and transition state interactions in the denatured state of ACBP from residual dipolar couplings. *Journal of Molecular Biology*, **2004**, 339, 1191-9	6.5	72
25	Different secondary structure elements as scaffolds for protein folding transition states of two homologous four-helix bundles. *Proteins: Structure, Function and Bioinformatics*, **2005**, 59, 80-90	4.2	38
24	Regulation of lipolytic activity by long-chain acyl-coenzyme A in islets and adipocytes. *American Journal of Physiology - Endocrinology and Metabolism*, **2005**, 289, E1085-92	6	29
23	Reversible dimerization of acid-denatured ACBP controlled by helix A4. *Biochemistry*, **2005**, 44, 1375-84	3.2	15
22	High resolution crystal structures of unliganded and liganded human liver ACBP reveal a new mode of binding for the acyl-CoA ligand. *Proteins: Structure, Function and Bioinformatics*, **2007**, 66, 229-38	4.2	28
21	Thia fatty acids with the sulfur atom in even or odd positions have opposite effects on fatty acid catabolism. *Lipids*, **2006**, 41, 169-77	1.6	12
20	Detection of initiation sites in protein folding of the four helix bundle ACBP by chemical shift analysis. *FEBS Letters*, **2007**, 581, 4965-71	3.8	43
19	Fractional 13C enrichment of isolated carbons using [1-13C]- or [2- 13C]-glucose facilitates the accurate measurement of dynamics at backbone Calpha and side-chain methyl positions in proteins. *Journal of Biomolecular NMR*, **2007**, 38, 199-212	3	145
18	Model-independent interpretation of NMR relaxation data for unfolded proteins: the acid-denatured state of ACBP. *Journal of Biomolecular NMR*, **2008**, 42, 163-77	3	26
17	Characterization of an acyl-coenzyme A binding protein predominantly expressed in human primitive progenitor cells. *Journal of Lipid Research*, **2008**, 49, 1103-12	6.3	22
16	How chain length and charge affect surfactant denaturation of acyl coenzyme A binding protein (ACBP). *Journal of Physical Chemistry B*, **2009**, 113, 13942-52	3.4	31
15	The role of decorated SDS micelles in sub-CMC protein denaturation and association. *Journal of Molecular Biology*, **2009**, 391, 207-26	6.5	116
14	Cooperative formation of native-like tertiary contacts in the ensemble of unfolded states of a four-helix protein. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 13306-11	11.5	39
13	The interplay between transient α-helix formation and side chain rotamer distributions in disordered proteins probed by methyl chemical shifts. *Protein Science*, **2011**, 20, 2023-34	6.3	11
12	A highly compliant protein native state with a spontaneous-like mechanical unfolding pathway. *Journal of the American Chemical Society*, **2012**, 134, 17068-75	16.4	24
11	The pKa value and accessibility of cysteine residues are key determinants for protein substrate discrimination by glutaredoxin. *Biochemistry*, **2014**, 53, 2533-40	3.2	31
10	Exploring the minimally frustrated energy landscape of unfolded ACBP. *Journal of Molecular Biology*, **2014**, 426, 722-34	6.5	16

9	Residue 146 regulates prolactin receptor folding, basal activity and ligand-responsiveness: potential implications in breast tumorigenesis. *Molecular and Cellular Endocrinology*, **2015**, 401, 173-88	4.4	8
8	Ligand binding to the ACBD6 protein regulates the acyl-CoA transferase reactions in membranes. *Journal of Lipid Research*, **2015**, 56, 1961-71	6.3	12
7	The ACBP gene family in Rhodnius prolixus: Expression, characterization and function of RpACBP-1. *Insect Biochemistry and Molecular Biology*, **2016**, 72, 41-52	4.5	16
6	Lipid membranes and acyl-CoA esters promote opposing effects on acyl-CoA binding protein structure and stability. *International Journal of Biological Macromolecules*, **2017**, 102, 284-296	7.9	6
5	Exploring the Denatured State Ensemble by Single-Molecule Chemo-Mechanical Unfolding: The Effect of Force, Temperature, and Urea. *Journal of Molecular Biology*, **2018**, 430, 450-464	6.5	13
4	Molecular dynamics study of ACBP denaturation in alkyl sulfates demonstrates possible pathways of unfolding through fused surfactant clusters. *Protein Engineering, Design and Selection*, **2019**, 32, 175-190	1.9	10
3	Effects of Ligand Binding on the Energy Landscape of Acyl-CoA-Binding Protein. *Biophysical Journal* , **2020**, 119, 1821-1832	2.9	8
2	Expression of acyl-CoA-binding protein 5 from Rhodnius prolixus and its inhibition by RNA interference. *PLoS ONE*, **2020**, 15, e0227685	3.7	2
1	Genes Encoding Microbial Acyl Coenzyme A Binding Protein/Diazepam-Binding Inhibitor Orthologs Are Rare in the Human Gut Microbiome and Show No Links to Obesity. *Applied and Environmental Microbiology*, **2021**, 87, e0047121	4.8	2