

## **SUPPLEMENTAL INFORMATION:**

### **Osteopontin regulates the crosstalk among phosphatidylcholine and cholesterol metabolism in mouse liver**

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**Supplemental Table S1. Antibodies used for immunoblotting.**

Target Antibody	Trading House	Catalog Number	Dilution
ACC	Cell Signaling	3662S	1/1000
P-ACC (S75)	Cell Signaling	3661S	1/1000
AKT	Cell Signaling	9272S	1/1000
P-AKT (S473)	Cell Signaling	9271S	1/1000
AMPK	Cell Signaling	2603S	1/1000
P-AMPK (T172)	Cell Signaling	2535S	1/1000
CYP7A1 (H-58)	Santa Cruz	25536	1/100
ERK 1/2	Cell Signaling	9102S	1/1000
P-ERK 1/2 (T202/Y204)	Cell Signaling	9106S	1/2000
FAK	Cell Signaling	3285S	1/1000
P-FAK (Y397)	Cell Signaling	3283S	1/1000
JNK 1/2	Cell Signaling	9252S	1/2000
P-JNK 1/2 (T183/Y185)	Promega	V7931	1/2000
GAPDH	Abcam	8245	1/20000
Transferrin (I-20)	Santa Cruz	22597	1/10000

ACC, acetyl-Coenzyme A carboxylase 1; AMPK, AMP-activated protein kinase; AKT, protein kinase B; CYP7A1, cholesterol 7- $\alpha$ -hydroxylase; ERK, Extracellular signal-related kinases 1/2; FAK, focal adhesion kinase; JNK, c-Jun N-terminal kinases 1/2. As a loading control GAPDH, glyceraldehyde-3-phosphate dehydrogenase; and transferrin were used.

**Supplemental Table S2. Oligonucleotides used for the quantitative PCR analysis.**

Gene	Accession	Oligonucleotides
Abcb4	NM_008830	f: CGTCAGGTGTCTAAGGGAAATCAT r: TAGCGGATATTTTCAGCGATCGT
Abcb11	NM_021022	f: AATGTTCAAGTTCCTCCGTTCAAAC r: CTTTGGTGTGTCCCCATACTTG
Abcc3	NM_029600	f: CATCCTTGGCTACCGACGTC r: GCAGCCGTTGTACCACCTTG
Abcg5	NM_031884	f: TGTGATTGTCACCATCCACCAG r: CCACAGAACACCAACTCTCCGT
Abcg8	NM_026180	f: TTCACAGCCCACAATCTGGTG r: ATGTCAGAGCGAGGCTGGTG
Actb	NM_007393	f: ATCGCTGACAGGATGCAGAAG r: TCAGGAGGAGCAATGATCTTGA
Alb	NM_009654	f: CAACATTTCAAAGGCCTAGTCTCG r: CCTGCACTAATTTGGCATGCTC
Ces1d	NM_053200	f: CATTGCTGGTCTGGTTGCTACTC r: CGCAGGCAATGAACCATAACA
Chka	NM_013490	f: GCTGTCGTGTGGATGCTAGA r: CCGTGGTTAAGGACTGCT
Chkb	NM_007692	f: AGCCTCAAGGACGAGATGAA r: TGGCTCTGAAAGCAACAAGA
Ch25h	NM_009890	f: CTCTTCGACACCGAGATCTTCG r: TTCTGGTGATGCACCTTGTGG
Etnk2	NM_175443	f: AGTGGATGCCAATGAAGACC r: CCAAGCCTAGCAGGATGAAG
Gapdh	NM_001289726	f: TATGACTCCACTCACGGCAAATT r: TCGCTCCTGGAAGATGGTGAT
Hmgcr	NM_008255	f: AACATGTTCAACGGCAACAAC r: CGCGTTATCGTCAGGATGATG
Hnf4a	NM_008261	f: AGAACCCCCACACAACAGGAC r: GAGCATGGACAACCTGTTCTGAC
Npc1	NM_008720	f: AGGCAGACCAACCAATACATGC r: GGCAGACTTGTGAAGGACTGTTTC
Nr5a2	NM_030676	f: GCAATCAGCAAGCAGGCAG r: CTTAGGCTCTTTTGGCATGCA
Pcyt1a	NM_001163159	f: CTGGCCCTAATGGAGCAACA r: AGGAGCTGGCTGCCGTAAC
Pcyt2	NM_024229	f: GCCTTTGACCTGTTCCACAT r: CCGGTTTACTTCCTGGTCAA
Pemt	NM_001290011	f: GAGCTGGCTGCTGGGTTACAT r: CAGAAGAGTGGGTTGAACACAATG
Ppia	NM_008907	f: CCAAGACTGAGTGGCTGGATG r: GCTCCATGGCTTCCACAATG

Slc10a1	NM_001177561	f: ATCGCCATAGTGGCCCAGTAC r: CCTCAATGCTGGTCAGATGAAAG
Srebf2	NM_033218	f: CCTGTGGAGCAGTCTAACGTC r: GCTTTTGCCAGAGTGCTGTCC
Soat1	NM_009230	f: GCCGTACAAGTTGCTCACACAC r: AGACTTCCCAAACACTGTACGGATG
Soat2	NM_146064	f: TGCGGTTTGGAGACAGGATG r: CATGGACCACGACGTTCCAG

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Abcb4 (MDR2), multidrug resistance protein 2; Abcb11 (BSEP), bile salt export pump; Abcc3 (MRP3), canalicular multispecific organic anion transporter 2; Abcg5, ATP-binding cassette sub-family G member 5; Abcg8, ATP-binding cassette sub-family G member 8; Chka, choline kinase alpha; Chkb, choline/ethanolamine kinase; Ch25h, cholesterol 25-hydroxylase; Etnk2, ethanolamine kinase 2; Hnf4a, hepatocyte nuclear factor 4-alpha; Hmgcr, 3-hydroxy-3-methylglutaryl-Coenzyme A reductase; Ncp1, Niemann-Pick type C1; Nr5a2 (LRH1), liver receptor homolog 1; Pcyt1a, choline-phosphate cytidylyltransferase A; Pcyt2, ethanolamine-phosphate cytidylyltransferase; Pent, phosphatidylethanolamine N-methyltransferase; Slc10a1 (NTCP), sodium/bile acid cotransporter; Srebf2, sterol regulatory element binding factor 2; Soat1 (Dgat1), acyl-CoA:diacylglycerol acyltransferase 1; Soat2 (Dgat2), acyl-CoA:diacylglycerol acyltransferase 2. For normalization the following genes were used: Actb, actin; Alb, albumin; Gapdh, glyceraldehyde-3-phosphate dehydrogenase; Ppia, cyclophilin A.

f, forward primer; r, reverse primer.