

**Supplementary Table S4.** Lists of upregulated Proteins (lower than 2 fold) Identified by iTRAQ in rat livers after 20 mg/kg/day PFOA Exposure for 14 Days

| Accession  | Description                                                      | Unique Peptides | fold changes | p value |
|------------|------------------------------------------------------------------|-----------------|--------------|---------|
| Q4KLZ0     | Protein Vnn1                                                     | 8               | 1.99         | 0.001   |
| Q5FVN0     | Lysophospholipid acyltransferase 5                               | 5               | 1.99         | 0       |
| P42346     | Serine/threonine-protein kinase mTOR                             | 4               | 1.96         | 0       |
| P07308     | Acyl-CoA desaturase 1                                            | 2               | 1.94         | 0.011   |
| B3DMA2     | Acyl-CoA dehydrogenase family member 11                          | 36              | 1.94         | 0       |
| G3V9U2     | 3-ketoacyl-CoA thiolase, mitochondrial                           | 26              | 1.93         | 0       |
| Q62878     | 3 beta-hydroxysteroid dehydrogenase/Delta 5-->4-isomerase type 4 | 3               | 1.92         | 0.028   |
| Q64428     | Trifunctional enzyme subunit alpha, mitochondrial                | 32              | 1.9          | 0       |
| Q8K3R0     | Carboxylic ester hydrolase                                       | 12              | 1.89         | 0.005   |
| Q5XIC0     | Enoyl-CoA delta isomerase 2, mitochondrial                       | 9               | 1.89         | 0       |
| Q9Z2M4     | Peroxisomal 2,4-dienoyl-CoA reductase                            | 13              | 1.89         | 0.001   |
| P04800     | Cytochrome P450 3A1                                              | 1               | 1.88         | 0.003   |
| P08289     | Alkaline phosphatase, tissue-nonspecific isozyme                 | 1               | 1.87         | 0.003   |
| Q9Z122     | Fatty acid desaturase 2                                          | 4               | 1.87         | 0.005   |
| Q60587     | Trifunctional enzyme subunit beta, mitochondrial                 | 18              | 1.87         | 0       |
| D4A131     | Mitochondrial ribosomal protein L4 (Predicted), isoform CRA_b    | 1               | 1.86         | 0       |
| P35571     | Glycerol-3-phosphate dehydrogenase, mitochondrial                | 18              | 1.85         | 0.007   |
| Q6AYS8     | Estradiol 17-beta-dehydrogenase 11                               | 11              | 1.81         | 0       |
| O35077     | Glycerol-3-phosphate dehydrogenase [NAD(+)], cytoplasmic         | 21              | 1.79         | 0       |
| Q6AYT7     | Monoacylglycerol lipase ABHD12                                   | 5               | 1.79         | 0.003   |
| Q6IN39     | Hsd17b4 protein                                                  | 33              | 1.79         | 0       |
| F1LWK7     | Protein Ablim1 (Fragment)                                        | 1               | 1.78         | 0       |
| P51590     | Cytochrome P450 2J3                                              | 8               | 1.77         | 0.002   |
| P97521     | Mitochondrial carnitine/acylcarnitine carrier protein            | 14              | 1.76         | 0       |
| P18163     | Long-chain-fatty-acid--CoA ligase 1                              | 36              | 1.75         | 0       |
| P02692     | Fatty acid-binding protein, liver                                | 9               | 1.74         | 0.003   |
| P21775     | 3-ketoacyl-CoA thiolase A, peroxisomal                           | 2               | 1.73         | 0.005   |
| Q5HZE2     | Transmembrane protein 120A                                       | 1               | 1.73         | 0       |
| D4AEL8     | 5-azacytidine induced gene 1 (Predicted), isoform CRA_a          | 1               | 1.73         | 0.001   |
| G3V7V6     | All-trans-13,14-dihydroretinol saturase, isoform CRA_b           | 23              | 1.73         | 0.001   |
| B2RZA3     | Fam45a protein (Fragment)                                        | 2               | 1.72         | 0.005   |
| A0A0G2K3W1 | Protein Vwa8                                                     | 10              | 1.72         | 0       |
| F1LQ10     | CD302 antigen                                                    | 1               | 1.71         | 0.001   |
| Q9ESN0     | Protein Niban                                                    | 6               | 1.69         | 0       |
| B2GV54     | Neutral cholesterol ester hydrolase 1                            | 3               | 1.69         | 0.003   |
| P18886     | Carnitine O-palmitoyltransferase 2, mitochondrial                | 25              | 1.68         | 0.001   |
| D3ZAP9     | Glycerol-3-phosphate dehydrogenase [NAD(+) ]                     | 6               | 1.67         | 0.001   |
| D3Z8I7     | Protein Gstt3                                                    | 3               | 1.67         | 0.005   |
| Q99NB7     | Acyl-coenzyme A thioesterase 12                                  | 16              | 1.66         | 0       |
| P63312     | Thymosin beta-10                                                 | 1               | 1.66         | 0.015   |
| F7FBM8     | Cytochrome P450 2B2                                              | 3               | 1.65         | 0.023   |
| P09139     | Serine--pyruvate aminotransferase, mitochondrial                 | 14              | 1.64         | 0       |
| Q5M875     | 17-beta-hydroxysteroid dehydrogenase 13                          | 14              | 1.64         | 0       |
| Q63151     | Long-chain-fatty-acid--CoA ligase 3                              | 1               | 1.64         | 0.015   |

|            |                                                                                        |    |      |       |
|------------|----------------------------------------------------------------------------------------|----|------|-------|
| P13676     | Acylamino-acid-releasing enzyme                                                        | 17 | 1.63 | 0     |
| D4A414     | COX15 homolog, cytochrome c oxidase assembly protein (Yeast), isoform CRA_a            | 1  | 1.63 | 0     |
| Q63530     | Phosphotriesterase-related protein                                                     | 2  | 1.61 | 0.001 |
| D3ZA93     | Protein Acot13                                                                         | 2  | 1.6  | 0.029 |
| P63095     | Guanine nucleotide-binding protein G(s) subunit alpha isoforms short                   | 6  | 1.6  | 0     |
| F1LM03     | Protein LOC100361492                                                                   | 2  | 1.59 | 0.002 |
| D3ZV74     | Nudix (Nucleoside diphosphate linked moiety X)-type motif 7 (Predicted), isoform CRA_d | 1  | 1.59 | 0     |
| A0A0G2K4M8 | Protein Acot3                                                                          | 5  | 1.58 | 0.019 |
| Q8CHM7     | 2-hydroxyacyl-CoA lyase 1                                                              | 21 | 1.58 | 0.013 |
| M0R7V3     | MICOS complex subunit                                                                  | 2  | 1.57 | 0.002 |
| Q5M884     | Enoyl-CoA delta isomerase 2, mitochondrial                                             | 11 | 1.54 | 0.002 |
| P08683     | Cytochrome P450 2C11                                                                   | 13 | 1.53 | 0.022 |
| D3ZS74     | Metalloendopeptidase OMA1, mitochondrial                                               | 1  | 1.53 | 0     |
| Q99MS0     | SEC14-like protein 2                                                                   | 1  | 1.53 | 0.001 |
| D4A5I9     | Protein Myo6                                                                           | 1  | 1.53 | 0     |
| G3V9N2     | Peroxisomal membrane protein 2                                                         | 1  | 1.52 | 0.016 |
| Q6IRJ7     | Annexin                                                                                | 6  | 1.52 | 0.001 |
| P55051     | Fatty acid-binding protein, brain                                                      | 6  | 1.52 | 0.001 |
| Q561R9     | Endoribonuclease LACTB2                                                                | 13 | 1.52 | 0     |
| G3V7Q6     | Proteasome subunit beta type                                                           | 8  | 1.51 | 0.004 |
| P97519     | Hydroxymethylglutaryl-CoA lyase, mitochondrial                                         | 15 | 1.51 | 0.001 |
| D4A132     | UDP-glucuronosyltransferase                                                            | 2  | 1.51 | 0.001 |
| Q4QRB0     | Galactose-4-epimerase, UDP, isoform CRA_a                                              | 3  | 1.5  | 0.016 |