

Supplemental Materials

Supplemental Table 1. The differentially expressed proteins from rat pancreas identified by proteomics (SAP vs. SO)

No.	Protein name	Gene name	ratio	P value
1	Metallothionein	Mt1m	3.35	6.34E-07
2	Neutrophil antibiotic peptide NP-2	Defa	3.3	8.39E-07
3	Ilf2 protein	Ilf2	3.18	1.75E-06
4	Numb isoform o/o	rCG	3.12	2.73E-06
5	Lysozyme	Lyz2	3.01	5.63E-06
6	Glucagon	Gcg	2.89	1.17E-05
7	Serine protease HTRA1	Htra1	2.75	2.97E-05
8	Alpha 2 macroglobulin cardiac isoform (Fragment)		2.75	2.97E-05
9	Myosin IF (Predicted)	Myo1f	2.65	5.53E-05
10	Neuroendocrine secretory protein 55	Gnas	2.61	7.60E-05
11	Matrix metalloproteinase 8	Mmp8	2.57	9.47E-05
12	Protein Tnks1bp1	Tnks1bp1	2.53	1.22E-04
13	Alpha-parvin	Parva	2.47	1.78E-04
14	C4b-binding protein alpha chain	C4bpa	2.42	2.53E-04
15	Protein KTI12 homolog	Kti12	2.41	2.74E-04
16	Protein Rab11fip5	Rab11fip5	2.41	2.84E-04
17	Protein Mcpt113	Mcpt113	2.33	4.43E-04
18	Phospholipase B-like 1	Plbd1	2.33	4.76E-04
19	Aldehyde dehydrogenase (NAD), cytosolic (Fragments)		2.32	4.93E-04
20	Protein Dpy19l2	Dpy19l2	2.3	5.68E-04
21	Regenerating islet-derived 3 alpha, isoform CRA_a	Reg3a	2.27	6.74E-04
22	60S acidic ribosomal protein P1	Rplp1	2.26	7.22E-04
23	Serum albumin	Alb	2.25	7.98E-04
24	Ribonuclease 4	Rnase4	2.24	8.25E-04
25	Cct-5 protein (Fragment)	Cct5	2.24	8.52E-04
26	Protein S100-A9	S100a9	2.22	9.71E-04
27	Creatine kinase M-type	Ckm	2.21	1.00E-03
28	Protein Larp4b	Larp4b	2.18	1.25E-03
29	Coagulation factor IX	F9	2.17	1.29E-03
30	Protein kinase C gamma type	Prkcg	2.15	1.55E-03
31	Angiopoietin-related protein 4	Angptl4	2.14	1.65E-03
32	ADP-ribosylation factor GTPase activating protein 1 brain isoform	Arfgap1	2.11	1.91E-03
33	Carboxylic ester hydrolase	Ache	2.11	2.02E-03
34	Brain-specific angiogenesis inhibitor 1-associated protein 2-like protein 1	Baiap2l1	2.09	2.27E-03
35	Protein Retnlg	Retnlg	2.05	2.84E-03
36	Eukaryotic translation initiation factor 2 subunit 1	Eif2a	2.03	3.34E-03

37	Cytochrome b5	Cyb5a	2.03	3.34E-03
38	Clusterin	Clu	2.02	3.43E-03
39	Condensin complex subunit 1	Ncapd2	2.02	3.43E-03
40	Protein Cyfip2	Cyfip2	2.02	3.52E-03
41	Regenerating islet-derived protein 3-beta	Reg3b	2.01	3.81E-03
42	Protein Lrp1b	Lrp1b	1.97	5.05E-03
43	Transcription factor BTF3	Btf3	1.96	5.05E-03
44	Protein RGD1304963	RGD1304963	1.96	5.18E-03
45	Brain-specific angiogenesis inhibitor 1-associated protein 2	Baiap2	1.95	5.71E-03
46	Apolipoprotein B-100	Apob	1.92	6.60E-03
47	Protein Edrf1	Edrf1	1.92	6.76E-03
48	Protein Sh3d19	Sh3d19	1.91	7.09E-03
49	Choline-phosphate cytidylyltransferase A	Pcyl1a	1.91	7.09E-03
50	Uncharacterized protein		1.89	8.14E-03
51	Myomegalin	Pde4dip	1.89	8.33E-03
52	Immunoglobulin joining chain	Igj	1.86	9.75E-03
53	Protein Rab30	Rab30	1.86	9.97E-03
54	Protein Cobll1	Cobll1	1.85	1.04E-02
55	Apolipoprotein A-II	Apoa2	1.85	1.06E-02
56	Phosphatidylinositol 3-kinase regulatory subunit alpha	Pik3r1	1.85	1.09E-02
57	Elastase 3B, pancreatic (Predicted), isoform CRA_b	Cela3b	1.84	1.09E-02
58	Aa1249	Crp	1.84	1.11E-02
59	CDK5 regulatory subunit-associated protein 2	Cdk5rap2	1.83	1.16E-02
60	Charged multivesicular body protein 4c	Chmp4c	1.82	1.26E-02
61	Hook homolog 1 (Drosophila) (Predicted)	Hook1	1.82	1.26E-02
62	Transcriptional activator protein Pur-beta	Purb	1.82	1.26E-02
63	TSC22 domain family protein 4	Tsc22d4	1.8	1.43E-02
64	Syntaxin-binding protein 1	Stxbp1	1.8	1.43E-02
65	Anionic trypsin-1	Prss1	1.8	1.46E-02
66	Guanine nucleotide-binding protein subunit gamma	Gng12	1.8	1.46E-02
67	Protein LOC100364568	LOC100364568	1.79	1.52E-02
68	RCG27903, isoform CRA_b	Zc3hav1	1.79	1.52E-02
69	Interleukin enhancer-binding factor 3	Ilf3	1.78	1.65E-02
70	Protein Mpo	Mpo	1.77	1.71E-02
71	Guanine nucleotide-binding protein-like 1 (Fragment)	Gnl1	1.77	1.75E-02
72	Ac1873	Fga	1.77	1.75E-02
73	Protein LOC680385	LOC680385	1.77	1.75E-02
74	Protein Myh1	Myh1	1.77	1.75E-02
75	Thrombospondin 1	Thbs1	1.77	1.75E-02
76	Serum paraoxonase/arylesterase 1	Pon1	1.77	1.78E-02

77	Protein Vtn	Vtn	1.76	1.82E-02
78	Protein S100-A8	S100a8	1.76	1.85E-02
79	Elastase 2, neutrophil (Predicted)	Elane	1.76	1.85E-02
80	EGF-containing fibulin-like extracellular matrix protein 1	Efemp1	1.76	1.85E-02
81	GTP-binding protein G-alpha-i2 splice variant a (Fragment)	Gnai2	1.76	1.89E-02
82	RGD1562416 protein	RGD1562416	1.75	1.96E-02
83	Beta-enolase	Eno3	1.74	2.08E-02
84	Annexin A1	Anxa1	1.73	2.24E-02
85	High affinity immunoglobulin epsilon receptor subunit gamma	Fcer1g	1.72	2.32E-02
86	RGD1308009 protein (Fragment)	RGD1308009	1.72	2.41E-02
87	Carbonyl reductase 3	Cbr3	1.72	2.41E-02
88	Thy-1 membrane glycoprotein	Thy1	1.72	2.41E-02
89	Protein Rreb1	Rreb1	1.71	2.50E-02
90	Carboxypeptidase A5	Cpa5	1.71	2.59E-02
91	RuvB-like 1	Ruvbl1	1.7	2.64E-02
92	Glutamate receptor ionotropic, NMDA 2B	Grin2b	1.7	2.64E-02
93	Protein Wnk2	Wnk2	1.7	2.69E-02
94	Protein AI314180	AI314180	1.7	2.74E-02
95	Uncharacterized protein		1.69	2.83E-02
96	Cyclic AMP-dependent transcription factor ATF-3	Atf3	1.69	2.88E-02
97	Protein Cpne1	LOC100910990	1.69	2.93E-02
98	PAK-interacting exchange factor beta2-PIX	Arhgef7	1.68	2.99E-02
99	Specifically androgen-regulated gene protein	Sarg	1.68	3.09E-02
100	Interferon-gamma-inducible GTPase Ifggd2 protein	Irgm2	1.68	3.15E-02
101	Proteasomal ubiquitin receptor ADRM1	Adrm1	1.67	3.20E-02
102	SPARC-like 1 (Mast9, hevin), isoform CRA_a	Sparcl1	1.67	3.20E-02
103	Protein LOC100361920	LOC100361920	1.67	3.31E-02
104	Inositol-trisphosphate 3-kinase C	Itpkc	1.66	3.42E-02
105	Proteasome activator complex subunit 2	Psme2	1.65	3.60E-02
106	Interleukin-6 receptor subunit beta	Il6st	1.65	3.72E-02
107	Protein Mad111	Mad111	1.65	3.72E-02
108	Lithostathine	Reg1	1.64	3.97E-02
109	Protein Foxp4	Foxp4	1.64	3.97E-02
110	Neutrophilic granule protein (Predicted)	Ngp	1.63	4.10E-02
111	Protein Ssfa2	Ssfa2	1.63	4.10E-02
112	Protein Lrba	Lrba	1.63	4.17E-02
113	Erythroid spectrin beta	Sptb	1.63	4.24E-02
114	Vesicle transport protein SEC20	Bnip1	1.62	4.31E-02
115	AP-2 complex subunit alpha-2	Ap2a2	1.62	4.31E-02

116	Nuclear envelope pore membrane protein POM 121	Pom121	1.62	4.38E-02
117	Protein RGD1562037	RGD1562037	1.61	4.73E-02
118	Platelet glycoprotein Ib beta chain	5-Sep	1.61	4.73E-02
119	Protein Baz1a	Baz1a	1.61	4.73E-02
120	Neutrophil antibiotic peptide NP-4	Np4	1.6	4.88E-02
121	Kinesin-like protein	Kif13b	1.6	4.88E-02
122	Clathrin-assembly lymphoid myeloid leukemia protein	Picalm	1.6	4.88E-02
123	Pre-eosinophil-associated ribonuclease-2	Rnase2	1.6	4.96E-02
124	Sorting nexin family member 27, isoform CRA_b	Snx27	0.66	4.82E-02
125	Mitochondrial dynamics protein MID51	Mief1	0.66	4.82E-02
126	Beta-hexosaminidase subunit alpha	Hexa	0.66	4.79E-02
127	AKT1 substrate 1 (Proline-rich) (Predicted), isoform CRA_d	Akt1s1	0.66	4.71E-02
128	ADP-ribosylhydrolase like 2	Adprhl2	0.65	4.47E-02
129	Tubulin gamma-1 chain	Tubg1	0.65	4.41E-02
130	Protein Coa6	Coa6	0.65	4.31E-02
131	Palladin (Fragment)	Palld	0.65	4.25E-02
132	ATP-dependent Clp protease proteolytic subunit	Clpp	0.65	4.25E-02
133	Probable bifunctional methylenetetrahydrofolate dehydrogenase/cyclohydrolase 2	Mthfd2l	0.65	4.15E-02
134	CD59 glycoprotein	Cd59	0.65	4.15E-02
135	Hypothetical LOC498675	LOC498675	0.65	4.09E-02
136	Protein LOC684681	LOC684681	0.65	4.06E-02
137	UPF0598 protein C8orf82 homolog		0.65	4.03E-02
138	Flotillin 1	Flot1	0.65	4.00E-02
139	Metastasis-associated gene family, member 2	Mta2	0.64	3.88E-02
140	ATP synthase protein 8	Mt-atp8	0.64	3.79E-02
141	Uncharacterized protein		0.64	3.76E-02
142	Protein Vom2r31	Vom2r31	0.64	3.73E-02
143	Protein Asmtl	Asmtl	0.64	3.73E-02
144	Otud4 protein (Fragment)	Otud4	0.64	3.65E-02
145	Inositol polyphosphate 5-phosphatase OCRL-1	Ocrl	0.64	3.57E-02
146	Glucocorticoid receptor (Fragment)	Nr3c1	0.64	3.54E-02
147	Isocitrate dehydrogenase [NAD] subunit gamma 1, mitochondrial	Idh3g	0.64	3.51E-02
148	ATP synthase subunit O, mitochondrial	Atp5o	0.64	3.49E-02
149	Acetyl-Coenzyme A dehydrogenase, medium chain	Acadm	0.64	3.49E-02
150	Protein Tmem30b	Tmem30b	0.64	3.41E-02
151	Motile sperm domain-containing protein 1	Mospd1	0.64	3.38E-02
152	Protein RGD1564420	RGD1564420	0.64	3.31E-02
153	Protein Plin4	Plin4	0.64	3.26E-02
154	Extracellular matrix protein 1	Ecm1	0.63	3.18E-02
155	40S ribosomal protein S29	Rps29	0.63	3.11E-02

156	Sepiapterin reductase	Spr	0.63	3.04E-02
157	Protein Rbx1	Rbx1	0.63	2.84E-02
158	Protein RGD1305455	RGD1305455	0.63	2.77E-02
159	Protein LOC681918	LOC686074	0.63	2.77E-02
160	60S ribosomal protein L29	Rpl29	0.63	2.77E-02
161	Neutrophil gelatinase-associated lipocalin	Lcn2	0.63	2.77E-02
162	Alpha-centractin	Actr1a	0.63	2.69E-02
163	40S ribosomal protein S24	Rps24	0.62	2.61E-02
164	Adenylosuccinate lyase	Adsl	0.62	2.59E-02
165	COX15 homolog, cytochrome c oxidase assembly protein (Yeast), isoform CRA_a	Cox15	0.62	2.59E-02
166	Protein Birc6	Birc6	0.62	2.57E-02
167	Ubiquitin carboxyl-terminal hydrolase	Usp47	0.62	2.57E-02
168	Protein Sympk	Sympk	0.62	2.55E-02
169	Zinc finger CCCH domain-containing protein 18	Zc3h18	0.62	2.53E-02
170	Glucosamine-6-phosphate isomerase	Gnpda1	0.62	2.45E-02
171	Protein RGD1311805	RGD1311805	0.62	2.32E-02
172	Histone H1.5	Hist1h1b	0.62	2.28E-02
173	Endoplasmic reticulum metalloproteinase 1	Ermp1	0.61	2.18E-02
174	GPI transamidase component PIG-S	Pigs	0.61	2.15E-02
175	Lactamase, beta (Predicted)	Lactb	0.61	2.10E-02
176	Thioredoxin reductase 2, isoform CRA_a	Txnrd2	0.61	2.08E-02
177	Bcas3 protein (Fragment)	Bcas3	0.61	2.05E-02
178	Transporter 1 ATP-binding cassette sub-family B (Fragment)	Tap2	0.61	1.88E-02
179	Protein prune homolog 2	Prune2	0.61	1.88E-02
180	Protein Fundc2	Fundc2	0.61	1.81E-02
181	Protein LOC100910882	Rbm39	0.6	1.74E-02
182	Protein Hykk	Hykk	0.6	1.69E-02
183	SUMO-activating enzyme subunit 1	Sae1	0.6	1.68E-02
184	L-2-hydroxyglutarate dehydrogenase (Predicted)	L2hgdh	0.6	1.67E-02
185	DNA topoisomerase 1	Top1	0.6	1.59E-02
186	NADH-ubiquinone oxidoreductase chain 5	ND5	0.6	1.59E-02
187	Golgi SNAP receptor complex member 1	Gosr1	0.6	1.57E-02
188	Epidermal fatty acid binding protein 5 (Fragment)	Fabp5	0.6	1.50E-02
189	Protein Mospd2	Mospd2	0.6	1.50E-02
190	40S ribosomal protein S30	Fau	0.6	1.48E-02
191	Tyrosine-protein kinase Lyn	Lyn	0.6	1.45E-02
192	Tetraspanin (Fragment)	Tspan6	0.6	1.43E-02
193	Carboxypeptidase E	Cpe	0.6	1.43E-02
194	Protein Slc25a45	Slc25a45	0.59	1.38E-02
195	Protein Sfxn2	Sfxn2	0.59	1.38E-02
196	Phosphatidylinositol 3-kinase, catalytic, beta polypeptide	Pik3cb	0.59	1.35E-02

197	Caseinolytic peptidase B protein homolog	Clpb	0.59	1.35E-02
198	Protein LOC684828	LOC684828	0.59	1.22E-02
199	Protein Ccm2	Ccm2	0.59	1.21E-02
200	Transcription factor A (Fragment)	Tfa	0.59	1.18E-02
201	Mitochondrial carnitine/acylcarnitine carrier protein	Slc25a20	0.59	1.17E-02
202	Glycogen phosphorylase, brain form (Fragment)	Pygb	0.58	1.11E-02
203	Protein Kctd14	Kctd14	0.58	1.03E-02
204	NADPH:adrenodoxin oxidoreductase, mitochondrial	Fdxr	0.58	9.84E-03
205	Nuclear factor 1	Nfic	0.58	9.76E-03
206	RCG51933, isoform CRA_b	Tdrkh	0.58	9.68E-03
207	Protein Mms19	Mms19	0.58	9.45E-03
208	Ena/VASP-like protein	Evl	0.57	8.78E-03
209	DnaJ homolog subfamily C member 10	Dnajc10	0.57	8.78E-03
210	Component of oligomeric golgi complex 8	Cog8	0.57	8.71E-03
211	Phosphatidylinositol 5-phosphate 4-kinase type-2 beta	Pip4k2b	0.57	8.57E-03
212	Histone H3	H3f3c	0.57	8.57E-03
213	Protein Znrf2	Znrf2	0.57	8.36E-03
214	Protein YIPF3	Yipf3	0.57	8.16E-03
215	Dynein heavy chain 12, axonemal	Dnah12	0.57	7.16E-03
216	COP9 (Constitutive photomorphogenic) homolog, subunit 5 (Arabidopsis thaliana)	Cops5	0.57	7.16E-03
217	Protein Ltbp4	Ltbp4	0.57	7.16E-03
218	Carnitine O-palmitoyltransferase 2, mitochondrial	Cpt2	0.57	7.11E-03
219	AP2-associated protein kinase 1	Aak1	0.56	6.66E-03
220	Protein LOC100912106	Pdcd5	0.56	5.69E-03
221	Hematological and neurological expressed 1 protein	Hn1	0.56	5.65E-03
222	Mitochondrial genome maintenance exonuclease 1	Mgme1	0.56	5.55E-03
223	Epsilon 1 globin	Hbe1	0.55	5.07E-03
224	Probable N-acetyltransferase CML1	Cml1	0.55	5.07E-03
225	Thimet oligopeptidase	Thop1	0.55	4.91E-03
226	Acyl-protein thioesterase 1	Lypla1	0.55	4.63E-03
227	Synaptotagmin-like 4, isoform CRA_a	Sytl4	0.55	4.48E-03
228	Protein BUD31 homolog	Bud31	0.55	4.37E-03
229	Brefeldin A-inhibited guanine nucleotide-exchange protein 2	Arfgef2	0.55	4.19E-03
230	Probable 2-oxoglutarate dehydrogenase E1 component DHKTD1, mitochondrial	Dhtkd1	0.55	4.19E-03
231	Protein Def6	Def6	0.55	4.09E-03
232	Protein FAM136A	Fam136a	0.55	4.02E-03
233	Mitochondrial import inner membrane translocase subunit TIM44	Timm44	0.54	3.52E-03
234	Trefoil factor 2	Tff2	0.54	3.18E-03

235	Uroporphyrinogen decarboxylase (Fragment)	Urod	0.54	3.10E-03
236	Protein Slc25a35	Slc25a35	0.54	3.03E-03
237	Protein Ints3	Ints3	0.53	2.78E-03
238	N-acetyltransferase 9 (Predicted)	Nat9	0.53	2.76E-03
239	WFS1	Wfs1	0.53	2.45E-03
240	Xaa-Pro dipeptidase	Pepd	0.52	2.11E-03
241	Protein Phf8	Phf8	0.52	1.87E-03
242	Transcription elongation factor B polypeptide 3	Tceb3	0.52	1.66E-03
243	RCG40148	Sephs2	0.51	1.34E-03
244	Ras-related protein Rab-8B	Rab8b	0.5	1.09E-03
245	60S ribosomal protein L37a	Rpl37a	0.5	1.07E-03
246	Protein Pigo	Pigo	0.5	9.97E-04
247	Arfaptin-1	Arfip1	0.5	9.72E-04
248	Uncharacterized protein		0.5	8.55E-04
249	Protein Cnot2	Cnot2	0.49	7.39E-04
250	GIMAP4	Gimap4	0.49	7.20E-04
251	Protein Trappc8	Trappc8	0.49	7.20E-04
252	ER lumen protein-retaining receptor 1	Kdelr1	0.49	6.06E-04
253	Polypeptide N-acetylgalactosaminyltransferase 13	Galnt13	0.47	3.97E-04
254	Alkaline phosphatase	Alpi	0.47	3.80E-04
255	Uncharacterized protein		0.47	3.64E-04
256	Transcriptional activator protein Pur-beta	Purb	0.47	3.57E-04
257	Protein Acsm1	Acsm1	0.46	2.61E-04
258	Protein RGD1563714	RGD1563714	0.46	2.27E-04
259	Protein polyglycyclase TTL10	Ttl10	0.46	2.27E-04
260	Flot2 protein	Flot2	0.46	1.86E-04
261	Protein Ganc	Ganc	0.45	1.23E-04
262	Protein Hccs	Hccs	0.44	1.11E-04
263	Putative hydrolase RBBP9	Rbbp9	0.44	1.06E-04
264	Leucine rich repeat containing 23	Lrrc23	0.44	9.48E-05
265	Beta-adrenergic receptor kinase 2	Adrbk2	0.44	8.54E-05
266	alpha-1,2-Mannosidase	Man1a2	0.42	3.77E-05
267	Elongation factor Ts, mitochondrial	Tsfm	0.42	3.25E-05
268	Protein Pla2g4d	Pla2g4d	0.4	1.34E-05
269	Protein Uhrf1bp1	Uhrf1bp1	0.4	1.10E-05
270	Phosphatidylinositol 3-kinase catalytic subunit type 3	Pik3c3	0.4	1.05E-05
271	Methylmalonic aciduria (Cobalamin deficiency) cblA type (Predicted), isoform CRA_a	Mmaa	0.39	8.88E-06
272	Protein Rnf214	Rnf214	0.37	2.63E-06
273	Translation initiation factor eIF-2B subunit gamma	Eif2b3	0.37	2.50E-06
274	PR domain zinc finger protein 2	Prdm2	0.37	1.71E-06
275	UDP-glucuronosyltransferase 2B37	Ugt2b37	0.35	7.69E-07
276	Bridging integrator 2	Bin2	0.35	4.16E-07

277	Enhancer of rudimentary homolog	Erh	0.34	3.68E-07
278	FACT complex subunit SSRP1	Ssrp1	0.34	2.18E-07
279	Protein Arhgap21	Arhgap21	0.34	1.78E-07
280	ATP-binding cassette, sub-family B (MDR/TAP), member 10	Abcb10	0.31	2.50E-08
281	Epidermal growth factor receptor pathway substrate 15 isoform B	Eps15	0.3	7.58E-09
282	Protein Slc37a1	Slc37a1	0.25	6.28E-11
283	Protein Kel	Kel	0.22	2.07E-13
284	A1b (Fragment)	RT1-A1b	0.18	2.69E-16
285	ATP-binding cassette, sub-family D (ALD), member 1 (Predicted)	Abcd1	0.18	9.13E-17

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No.	Protein name	Gene name	ratio	pI value
1	Serum albumin	Alb	0.29	1.33E-17
2	Protein Hectd3	Hectd3	0.30	9.72E-17
3	Cct-5 protein (Fragment)]	Cct5	0.32	3.12E-15
4	Protein Dpy19l2	Dpy19l2	0.33	1.67E-14
5	Protein Ppp6r2	Ppp6r2	0.46	6.38E-08
6	Protein Fn3k	Fn3k	0.47	1.45E-07
7	Glucagon	Gcg	0.48	2.34E-07
8	Metallothionein	Mt1m	0.48	3.71E-07
9	Small integral membrane protein 14	Smim14	0.48	4.01E-07
10	Beta-enolase	Eno3	0.49	7.80E-07
11	Phosphoglycerate mutase 2	Pgam2	0.50	1.58E-06
12	Ppp4r2 protein	Ppp4r2	0.50	1.70E-06
13	Creatine kinase M-type	Ckm	0.51	1.95E-06
14	Protein Nudcd1	Nudcd1	0.52	3.55E-06
15	Hemoglobin subunit alpha-1/2	Hba1	0.53	8.61E-06
16	Ubiquitin carboxyl-terminal hydrolase 16	Usp16	0.53	1.03E-05
17	Redox-regulatory protein FAM213A	Fam213a	0.54	1.39E-05
18	Insulin-1	Ins1	0.54	1.39E-05
19	Hypothetical LOC498675	LOC498675	0.56	5.93E-05
20	Oligosaccharyltransferase complex subunit OSTC	Ostc	0.57	7.69E-05
21	Claudin-3	Cldn3	0.57	7.69E-05
22	Metallothionein 1 (Fragments)	Mt1f	0.57	8.09E-05
23	Protein Fam195a	Fam195a	0.57	8.09E-05
24	Charged multivesicular body protein 4c	Chmp4c	0.57	1.04E-04
25	Protein Kctd18	Kctd18	0.58	1.70E-04
26	Protein Mdn1	Mdn1	0.58	1.78E-04
27	Serine/threonine-protein kinase MAK	Mak	0.59	1.96E-04
28	Succinyl-CoA:3-ketoacid coenzyme A transferase 1, mitochondrial	Oxct1	0.59	2.05E-04
29	Eukaryotic translation initiation factor 4E-binding protein 1	Eif4ebp1	0.59	2.25E-04
30	Protein Edrf1	Edrf1	0.59	2.58E-04
31	Protein Myh1	Myh1	0.59	2.58E-04
32	Ras-related protein Ral-B	Ralb	0.59	2.70E-04
33	Rho GTPase-activating protein 17	Arhgap17	0.60	3.39E-04
34	Serine protease inhibitor Kazal-type 3	Spink3	0.60	4.41E-04
35	Protein Neb	Neb	0.61	6.20E-04
36	Kng2 protein	Kng2	0.62	6.73E-04
37	Lethal(3)malignant brain tumor-like protein 1	L3mbtl1	0.62	1.01E-03

38	Anoctamin	Ano6	0.64	1.79E-03
39	UV-stimulated scaffold protein A	Uvssa	0.64	1.86E-03
40	Aldehyde dehydrogenase (NAD), cytosolic (Fragments)		0.64	1.86E-03
41	Protein Adgrl1	Adgrl1	0.64	1.86E-03
42	Cytochrome c oxidase subunit 6C-1	Cox6c1	0.64	1.93E-03
43	Truncated alpha-actinin		0.65	2.15E-03
44	Serine protease HTRA1	Htra1	0.65	2.23E-03
45	DNA topoisomerase 1	Top1	0.65	2.57E-03
46	DnaJ (Hsp40) homolog, subfamily B, member 12	Dnajb12	0.65	2.96E-03
47	Uncharacterized protein	Chmp4b	0.65	2.96E-03
48	CTTNBP2 N-terminal like (Predicted), isoform CRA_a	Ctnbp2nl	0.66	3.28E-03
49	Platelet glycoprotein Ib beta chain	Sept5	0.66	3.51E-03
50	Chloride intracellular channel protein	Clic4	0.66	3.63E-03
51	Protein Sh3d19	Sh3d19	0.66	3.63E-03
52	Leucine-rich repeat-containing G protein- coupled receptor 8	Rxfp2	0.66	3.89E-03
53	Protein Hbb-b1	Hbb-b1	0.66	4.02E-03
54	Platelet endothelial cell adhesion molecule	Pecam1	0.66	4.02E-03
55	Protein Cobll1	Cobll1	0.66	4.15E-03
56	Mitochondrial ribosomal protein S5 (Predicted)	Mrps5	0.67	4.29E-03
57	Phospholemman	Fxyd1	0.67	4.44E-03
58	Secernin-1	Scrn1	0.67	4.44E-03
59	Transcription elongation factor B polypeptide 2	Tceb2	0.67	4.59E-03
60	DnaJ homolog subfamily A member 2	Dnaja2	0.67	4.59E-03
61	Interferon regulatory factor 6 (Predicted)	Irf6	0.67	4.74E-03
62	Protein Mcpt113	Mcpt113	1.50	1.60E-02
63	Complement C1q subcomponent subunit B	C1qb	1.51	1.48E-02
64	Complement component C6	C6	1.51	1.45E-02
65	Uncharacterized protein		1.52	1.39E-02
66	Protein Tmem160	Tmem160	1.52	1.36E-02
67	Protein Ighm	Ighm	1.52	1.36E-02
68	Protein Carns1	Carns1	1.52	1.36E-02
69	Usher syndrome type-1C protein-binding protein 1	Ushbp1	1.52	1.34E-02
70	Protein Snw1	Snw1	1.52	1.33E-02
71	Protein Saysd1	Saysd1	1.52	1.30E-02
72	Protein Sec61b	Sec61b	1.52	1.30E-02

73	Aspartyl aminopeptidase	Dnpep	1.53	1.23E-02
74	Dipeptidyl peptidase 1	Ctsc	1.53	1.22E-02
75	Retinol-binding protein 4	Rbp4	1.53	1.22E-02
76	Protein Cyfip2	Cyfip2	1.53	1.17E-02
77	Hematological and neurological expressed 1 protein	Hn1	1.53	1.17E-02
78	Protein F13b	F13b	1.54	1.09E-02
79	Family with sequence similarity 49, member A	Fam49a	1.55	9.99E-03
80	Uncharacterized protein		1.55	9.99E-03
81	Actin, cytoplasmic 1	Actb	1.56	8.17E-03
82	Epidermal growth factor receptor pathway substrate 15 isoform B	Eps15	1.57	8.17E-03
83	Coactosin-like protein	Cotl1	1.57	7.90E-03
84	Alpha-1-inhibitor 3	A1i3	1.57	7.81E-03
85	ORM1-like 2 (<i>S. cerevisiae</i>) (Predicted), isoform CRA_a	Ormdl2	1.57	7.81E-03
86	Protein Sfn	Sfn	1.57	7.30E-03
87	Prostate leucine zipper variant 2	PrLZ	1.58	6.75E-03
88	Protein Mms19	Mms19	1.59	6.53E-03
89	Immunoglobulin joining chain	Igj	1.59	5.89E-03
90	Afamin	Afm	1.60	5.83E-03
91	Protein Pml	Pml	1.60	5.57E-03
92	Cleavage and polyadenylation specificity factor 3, isoform CRA_a	Cpsf3	1.61	4.85E-03
93	Uncharacterized protein		1.61	4.85E-03
94	Proteasome activator complex subunit 2	Psme2	1.62	4.58E-03
95	Protein Plekho2	Plekho2	1.62	4.58E-03
96	Collagen alpha-1(II) chain	Col2a1	1.62	4.53E-03
97	Protein Hgd	Hgd	1.63	3.68E-03
98	Alpha-2-HS-glycoprotein	Ahsg	1.64	3.43E-03
99	Uncharacterized protein		1.65	2.98E-03
100	PR domain zinc finger protein 2	Prdm2	1.65	2.92E-03
101	Protein LOC299282	LOC299282	1.66	2.88E-03
102	Uncharacterized protein	Ighv7-1	1.67	2.45E-03
103	L-lactate dehydrogenase B chain	Ldhb	1.68	2.23E-03
104	Uncharacterized protein		1.70	1.76E-03
105	Uncharacterized protein		1.70	1.62E-03
106	Apolipoprotein B-100	Apob	1.71	1.58E-03
107	Transcriptional activator protein Pur-beta	Purb	1.72	1.30E-03
108	Uncharacterized protein	Ighv7-1	1.72	1.30E-03
109	Attractin	Atrn	1.73	1.27E-03
110	Protein AMBP	Ambp	1.73	1.23E-03
111	Trypsin-4	Try4	1.74	1.11E-03

112	40S ribosomal protein S30	Fau	1.74	1.04E-03
113	Protein Zfp512	Zfp512	1.76	8.44E-04
114	Islet cell autoantigen 1	Ica1	1.76	7.94E-04
115	Nuclear cap-binding protein subunit 2	Ncbp2	1.76	7.94E-04
116	Serum paraoxonase/arylesterase 1	Pon1	1.77	6.95E-04
117	Protein Alms1	Alms1	1.80	5.31E-04
118	Protein LOC100362109	LOC100362109	1.83	3.62E-04
119	Synaptic vesicle 2-related protein	Svop	1.84	3.08E-04
120	T-cell surface glycoprotein CD4	Cd4	1.85	2.76E-04
121	60S ribosomal protein L36a	Rpl36a	1.85	2.72E-04
122	Carboxylesterase 1C	Ces1c	1.86	2.34E-04
123	Uncharacterized protein	Phf11b	1.89	1.59E-04
124	Proteasome subunit beta type-10	Psmb10	1.92	1.16E-04
125	Uncharacterized protein		1.93	9.48E-05
126	Protein Zfp318	Zfp318	1.95	8.35E-05
127	Kelch domain-containing protein 2	Klhdc2	1.95	8.14E-05
128	Transcription factor BTF3	Btf3	1.95	8.03E-05
129	Protein Arhgap25	Arhgap25	1.96	7.26E-05
130	Synaptogyrin-2	Syngr2	1.96	7.08E-05
131	Calpain small subunit 1	Capns1	1.96	6.56E-05
132	Protein LOC684828	LOC684828	2.01	3.46E-05
133	Coronin-1A	Coro1a	2.04	2.64E-05
134	Uncharacterized protein		2.05	2.15E-05
135	Uncharacterized protein		2.06	1.94E-05
136	Uncharacterized protein	LOC100911313	2.07	1.66E-05
137	ATP synthase F(0) complex subunit C1, mitochondrial	Atp5g1	2.07	1.62E-05
138	LIM domain-containing protein 2	Limd2	2.08	1.46E-05
139	60S ribosomal protein L36	LOC100360439	2.10	1.21E-05
140	Adenylate cyclase 9 (Predicted), isoform CRA_b	Adcy9	2.10	1.11E-05
141	60S ribosomal protein L29	Rpl29	2.11	9.37E-06
142	Ig kappa chain V region S211		2.12	8.67E-06
143	Uncharacterized protein		2.12	8.33E-06
144	MHC class II antigen RT1.B beta chain (Fragment)		2.15	6.17E-06
145	Protein Vom1r103	Vom1r103	2.20	3.30E-06
146	Histone H1.4	Hist1h1e	2.20	2.93E-06
147	Uncharacterized protein		2.21	2.60E-06
148	Protein Lin28b	Lin28b	2.24	1.78E-06
149	Ribosomal protein L37	LOC100360654	2.28	1.04E-06
150	Keratin, type II cytoskeletal 2 epidermal	Krt2	2.30	7.85E-07
151	Arylsulfatase E	Arse	2.34	5.01E-07
152	Protein LOC681918	LOC686074	2.38	2.95E-07

153	Signaling threshold-regulating transmembrane adapter 1	Sit1	2.49	7.05E-08
154	Ena/VASP-like protein	Evl	2.60	1.53E-08
155	Serum albumin	Alb	2.61	1.43E-08
156	Carboxylic ester hydrolase	Ces1d	2.63	9.74E-09
157	Trefoil factor 2	Tff2	2.65	8.09E-09
158	Protein Rab30	Rab30	2.68	5.22E-09
159	Histone H3	Hist2h3c2	2.71	3.70E-09
160	Protein LOC684681	LOC684681	2.76	1.81E-09
161	Dynein heavy chain 12, axonemal	Dnah12	2.99	8.76E-11
162	Histone H4	Hist1h4b	3.00	7.29E-11
163	Leukocyte common antigen	Ptprc	3.05	4.04E-11
164	GIMAP4	Gimap4	3.16	9.69E-12
165	Protein Slc37a1	Slc37a1	3.87	1.10E-15
166	Histone H1.1	Hist1h1a	4.88	5.83E-21
167	Protein Kel	Kel	8.22	9.19E-36

Supplemental Table 3. Histological scoring for acute pancreatitis.

Condition	Score	Description
Edema	0	Absent
	1	Diffuse expansion of interlobular septa
	2	1 + diffuse expansion of interlobular septa
	3	2 + diffuse expansion of interlobular septa
Inflammation (%)	0	Absent
	1	In parenchyma (< 50 of lobules)
	2	In parenchyma (51-75 of lobules)
	3	In parenchyma (> 75 of lobules)
Vacuolization (%)	0	Absent
	1	Focal (5-20)
	2	Diffuse (21-50)
	3	Severe (> 50)

Supplemental Table 4. The primer sequences used for real-time PCR assay

Gene	GenBank accession	Primers (5'-3')
IL-6	NM_012589.2	Forward: CTGATTGTATGAACAGCGATGATG Reverse: GG TAGAAACGGAACTCCAGAAGAC
IL-1 β	NM_012589.2	Forward: TCAGGAAGGCAGTGTCACTCA Reverse: CATCATCCCACGAGTCACAGA
TNF- α	NM_012675.3	Forward: CAAGAGCCCTTGCCCTAAGG Reverse: CGGACTCCGTGATGTCTAAGTACTT