

Supplementary Table S6: Microarray data showing the 419 genes differentially regulated (205 were down-regulated and 214 were up-regulated) in *Acp1*^{-/-} TAC hearts vs. *Acp1*^{+/+} TAC hearts. Only genes expression with fold changes ≥ 1.5 (up-regulated) or ≤ -1.5 (down-regulated) and p-value < 0.05 were considered statistically significant (n=5).

RefSeq Transcript ID	Gene Symbol	p-value (-/- tac vs. +/+ tac)	Fold-change (-/- tac vs. +/+ tac)
NM_001109992	Ptpn11	0.0130775	1.79759
NR_002860	1200003I10Rik	0.00186989	1.71713
NM_001039376	Pde4dip	0.018934	1.51667
NM_146200	Eif3c	0.017101	1.4764
NR_002860	1200015M12Rik	0.0156674	1.42515
---	---	0.00909618	1.42199
---	---	0.00147724	1.39871
NM_027884	Tns1	0.012316	1.38931
NM_013835	Trove2	0.0196522	1.37694
NM_001145885	Ddx4	0.00977795	1.37657
NM_001164370	Mipol1	0.018266	1.37076
NM_145528	Atg13	0.0197142	1.3703
NM_001130409	Ptk2	0.00516377	1.37008

---	---	0.00257531	1.36708
NM_018852	Scn9a	0.0173058	1.36649
NM_207541	Zfp81	0.000374977	1.36239
NM_001042752	Neo1	0.000539937	1.35693
NM_007894	Ear1	0.0187441	1.35453
NM_007715	Clock	0.000219222	1.34282
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NM_001110327	Dmtf1	0.0192496	1.33749
NM_033314	Slco2a1	0.00582085	1.33386
NM_011158	Prkar2b	0.00282267	1.33005
NM_010848	Myb	0.00451665	1.3291
NM_001001177	BC051142	0.00999912	1.32756
NM_029844	Mrap	0.00733161	1.32699
---	---	0.0155863	1.32551
NM_001081045	1700081L11Rik	0.000747542	1.32538
NM_010568	Insr	0.0115446	1.32394
NM_016779	Dmp1	0.0166408	1.32332
NM_025859	Arl1	0.017956	1.32321

NM_009229	Sntb2	0.0156059	1.32111
---	8430419K02Rik	0.00662268	1.32108
NM_001025565	Lhx9	0.0143272	1.31477
NM_001048176	Cerkl	0.0118049	1.31447
NM_010804	Mllt10	0.0126623	1.31351
NM_001098170	Pcdh10	0.0167334	1.31249
NM_009705	Arg2	0.00328058	1.31226
---	4921527H02Rik	0.000295337	1.31129
---	2900022M07Rik	0.0162081	1.31044
NM_001004367	Cxxc4	0.000439341	1.30793
NM_008779	Cntn3	0.0191544	1.30529
NM_008449	Kif5c	0.00894185	1.30301
NM_054051	Pip4k2b	0.0133669	1.30217
XR_106421	LOC100216343	0.0155613	1.30184
NM_001042611	Cp	0.0178343	1.30139
---	A830039H05Rik	0.00314213	1.30104
NM_029953	Arhgef38	0.00267471	1.29977
---	AA407107	0.00429703	1.2996

---	---	0.0155558	1.29183
---	---	0.0125581	1.29108
NR_033502	C030023E24Rik	0.0175527	1.29018
NM_008371	Il7	0.0028388	1.28874
NM_153550	Dirc2	0.00261149	1.28521
NM_001033288	Gm106	0.0114287	1.28405
XR_104866	2310067E19Rik	0.00916752	1.28059
XR_105119	A730056A06Rik	0.0174508	1.2805
NM_020608	Cramp1l	0.00419272	1.27976
---	---	0.00523736	1.2794
NM_018755	Pgcp	0.00705513	1.27865
---	4933423N03Rik	0.00725706	1.27829
---	6030451C04Rik	0.0160025	1.27637
---	---	0.00793491	1.27634
---	---	0.0110552	1.2753
---	AU018740	0.0101238	1.27493
NR_033518	Gm16039	0.00572196	1.2748
---	4933426B08Rik	0.0157878	1.27396

XM_001472971	3110054G05Rik	0.00291414	1.27138
NM_010878	Nck1	0.00139663	1.27109
NM_007560	Bmpr1b	0.0142265	1.26847
---	5230400M06Rik	0.00898631	1.26815
---	---	0.00915556	1.26814
---	---	0.0137366	1.2678
---	---	0.0123671	1.26724
---	---	0.000860503	1.26668
---	9030425L15Rik	0.00711487	1.26665
NM_010441	Hmga2	0.0182571	1.26647
NM_027652	Ept1	0.0184572	1.26639
---	---	0.00617747	1.26603
---	C80678	0.00294489	1.26591
NM_001177579	Gm10471	0.0153826	1.26384
---	8430437B07Rik	0.00718051	1.26349
---	---	0.0083321	1.26314
NM_178115	2700050L05Rik	0.00454865	1.26253
NM_021714	Wbp11	0.00662896	1.26174

NM_022985	Zfand6	0.0183983	1.26131
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NM_013668	Kdm5c	0.010481	1.25894
NM_024414	Stx1b	0.0011318	1.25852
NM_001001984	Kdm2a	0.0157139	1.25718
NM_001033233	Tmprss11a	0.012806	1.25672
NM_001035531	Adrbk2	0.0119543	1.2566
NM_001039692	Arhgap12	0.00823052	1.2555
NM_011613	Tnfsf11	0.0132289	1.25524
---	4930518F22Rik	0.0156056	1.25431
---	---	0.0155653	1.254
---	---	0.018404	1.25319
NM_001177615	Arpp21	0.01641	1.25193
---	---	0.00702257	1.25149
NM_028066	F11	0.0155305	1.24988
XM_001477226	2410141K09Rik	0.0029323	1.24966
---	9030405F24Rik	0.0139125	1.24864
NM_145383	Rho	0.00648838	1.24851

NM_019457	Lrrc6	0.0123263	1.24763
NM_145617	Herc1	0.0168393	1.24709
---	4921522E08Rik	0.00379762	1.24622
NM_008477	Ktn1	0.0168048	1.24616
NM_173444	Nbeal1	0.0116161	1.24572
NM_145997	Kdm5a	0.00642381	1.24564
---	3110027N22Rik	0.0028902	1.24388
---	---	0.0014298	1.2429
NM_025707	Klhl28	0.0195243	1.2429
NM_001025392	Bclaf1	0.00967401	1.24167
NM_010148	Epn2	0.00387779	1.24025
---	4933406B15Rik	0.0164941	1.23982
---	---	0.017165	1.23955
XM_001481164	1190002F15Rik	0.00983359	1.23945
NM_133718	Tmem30a	0.00696551	1.23742
NM_009539	Zap70	0.00616455	1.2374
NM_175032	Galnt16	0.00516852	1.23686
NM_175020	BC048599	0.0188252	1.23519

NM_011767	Zfr	0.00272921	1.23507
---	---	0.0130111	1.23422
NM_028946	Nhedc1	0.00579224	1.23336
NM_001166457	Brcc3	0.00629852	1.23284
---	4931431B13Rik	0.00594733	1.23068
---	---	0.0126199	1.2301
NM_145991	Cdc73	0.0134537	1.22973
NM_026005	2610301B20Rik	0.00228931	1.22884
---	3110062G12Rik	0.0111515	1.22828
NM_028958	Taf7l	0.0153812	1.22769
NM_177331	Gen1	0.0196959	1.22662
NM_001037841	Cklf	0.0150789	1.22657
---	---	0.00881828	1.2243
---	2900064F13Rik	0.0113151	1.22376
NM_001079847	Gpr64	0.0178469	1.22364
---	---	0.00432219	1.22342
NM_008746	Ntrk3	5.62E-05	1.22314
NM_001098170	Pcdh10	0.00345938	1.22276

NM_007496	Zfhx3	0.00976068	1.22275
NM_008638	Mthfd2	0.0112743	1.22237
---	---	0.0178981	1.22226
NM_029949	Snpc3	0.0097222	1.22221
---	2700057C20Rik	0.00872389	1.22206
---	Gm568	0.0198738	1.22193
NM_001113414	Ebf3	0.0131599	1.22185
---	---	0.0164082	1.22174
---	2610528B01Rik	0.00848383	1.22149
NM_001162906	2410089E03Rik	0.0114155	1.22105
NM_016686	Vezf1	0.00770451	1.22068
NM_007758	Cr2	0.0163667	1.22041
NM_133692	Pold3	0.00817828	1.22015
NM_201258	Oog3	0.00601308	1.21975
NM_020293	Cldn9	0.00482748	1.2195
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XR_105785	G730013B05Rik	0.00455733	1.21898
NM_001042653	Oip5	0.0094694	1.21893

NM_001033819	9130409I23Rik	0.00394192	1.21888
NM_173451	Arsj	0.00341692	1.21875
---	AA675344	0.00462028	1.21842
NM_029835	5730590G19Rik	0.0145936	1.21841
---	---	0.0179334	1.21817
NM_001033210	Pls1	0.00564068	1.21816
NM_054066	Plcz1	0.00728869	1.21798
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---	D15Ertd55e	0.0104162	1.21643
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NM_177772	Bpil2	0.0149519	1.21635
NM_027801	2610015P09Rik	0.0153519	1.21556
NM_028593	Cybrd1	0.0153519	1.21475
NM_172430	Sphkap	0.00841648	1.21452
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NM_027892	Ppp1r12a	0.0109131	1.21384
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NM_001001319	Gm13102	0.00630353	1.21242
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NM_019569	Fscn3	0.00164281	1.21166
XR_105421	1700028I16Rik	0.013696	1.21103
NR_030689	4930539J05Rik	0.0192282	1.21081
NM_001081017	Unc79	0.0160566	1.21046
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NM_183296	Krtap16-10	0.0179553	1.20921
---	8430437N05Rik	0.0128809	1.20906
NM_053215	Ugt2b37	0.0199481	1.20906
NM_009991	Cyp11b2	0.0117805	1.20896
NM_001037846	Cnot2	0.00590415	1.20857
---	2610030P05Rik	0.00381995	1.20847
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XR_105272	LOC100504522	0.0175275	1.2074
NM_145482	Setd4	0.00181379	1.20734
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---	D1ErtD273e	0.0069919	1.20659
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NM_015793	Fbxw14	0.0164501	1.20607
NM_008239	Foxq1	0.00685154	1.205
NM_174885	Adam6a	0.00668459	1.20464
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NM_001109759	Fam71a	0.0127611	1.20435
NM_008731	Npy2r	0.0189609	1.20421
NM_175500	Gpc5	0.00803873	1.20359
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NM_007674	Cdx4	0.00757154	1.20276
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NM_026775	Tmed10	0.0188062	1.20129
NM_001177481	Defa5	0.00542472	1.20108
NM_001112796	Bicd1	0.00734861	1.20106

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NM_001174086	Shisa9	0.0171828	1.20063
---	1110069O07Rik	0.0191289	1.2005
NM_153083	Thtpa	0.0103265	-1.20175
NM_001030307	Dkc1	0.00229412	-1.20197
NM_033134	Inpp5e	0.0165344	-1.20206
NM_027250	2010305A19Rik	0.00590533	-1.20219
XR_001632	2410017P09Rik	0.013277	-1.20263
XM_001474786	4930470H14Rik	0.00113187	-1.20293
NM_009837	Cct4	0.00336918	-1.20322
NM_018742	Bet1l	0.0115353	-1.20322
NM_007622	Cbx1	0.00320393	-1.20375
NM_022313	Eral1	9.28E-05	-1.20432
NM_001013385	Grm4	0.0162935	-1.20531
NM_026549	Pdcd2l	0.0154689	-1.20587
NM_015755	Hunk	0.00461297	-1.20651
NM_027464	5730469M10Rik	0.00152151	-1.20705
NM_144514	Commd1	0.0039174	-1.20744

NM_172771	Dmxd2	0.00434847	-1.20823
NM_025676	Mcm8	0.00577717	-1.20932
NM_001013375	Utp18	0.0154158	-1.20942
NM_153540	C85492	0.0113127	-1.20964
NM_001159527	Wdr35	0.0110711	-1.21056
NM_020295	Lmbr1	0.00754501	-1.2106
NM_001033227	Slc5a10	0.00592675	-1.21081
NM_001177770	Clcc1	0.0107119	-1.21125
NM_008026	Fli1	0.0186177	-1.21204
NM_001100606	Adat3	0.00338029	-1.21206
NM_001081359	Ubr5	0.00364943	-1.21217
NM_001170540	Btf3	0.00797023	-1.21223
NM_001026211	Dnajc19	0.00598502	-1.21232
NM_001114977	2610101N10Rik	0.00459894	-1.21241
NM_026774	Hbxip	0.0144592	-1.21295
NM_178653	Sccpdh	0.0106973	-1.21311
NM_027000	Gtpbp4	0.00434872	-1.2141
NM_026534	Ubxn2b	0.0170554	-1.21535

NM_177066	Tnni3k	0.0169073	-1.21616
NM_024188	Oxct1	0.011451	-1.21637
NM_153775	Ctu2	0.0152255	-1.21645
NM_008961	Pter	0.00798066	-1.21656
NM_023053	Twsg1	0.00886126	-1.21687
NM_011563	Prdx2	0.00841665	-1.21871
NM_007681	Cenpa	0.0105232	-1.21938
NM_147778	Commd3	0.00966605	-1.2197
NM_013902	Fkbp3	0.00949065	-1.21988
NM_027016	Sec62	0.0184956	-1.22019
NM_001025438	Camk2d	0.008801	-1.22092
NM_025464	Tmem218	0.0014144	-1.22122
NM_026708	Tlcd1	0.0133886	-1.22155
NM_177359	Zfp799	0.00891167	-1.22157
NM_020295	Lmbr1	0.00616267	-1.2224
NM_015769	Ercc4	0.00133708	-1.22278
NM_001177980	Pde4b	0.00514037	-1.223
NM_009541	Zbtb17	0.00486202	-1.22336

NM_027453	Btf3l4	0.0147885	-1.2238
NM_007711	Clcn3	0.0112241	-1.22387
NM_007840	Ddx5	0.011571	-1.22444
NM_001161782	Trim32	0.0145031	-1.2258
NM_027356	Ufsp1	0.0103498	-1.22609
NM_001039511	Ivns1abp	0.00587129	-1.2269
NM_029368	1700029F09Rik	0.0156361	-1.22692
NM_026949	Cnot8	0.0136728	-1.22775
NM_025864	Tmem206	0.00516958	-1.2278
NM_133724	Cno	0.00466553	-1.22793
NM_001167767	1110057K04Rik	0.0184144	-1.22812
NM_025901	Polr3k	0.00929831	-1.22921
NM_183285	Kctd2	0.0131587	-1.23047
NM_026635	Fam96a	0.00105456	-1.2306
NM_001162941	Mapre2	0.0128198	-1.23242
NM_026120	2410127L17Rik	0.0198963	-1.23435
NM_197988	1190005I06Rik	0.00806873	-1.23508
NM_025558	Cyb5b	0.0141399	-1.23627

NM_028360	Ttc19	0.00597677	-1.23782
NM_182841	Tmem150c	0.0172416	-1.23801
NM_011220	Pts	0.0110514	-1.2385
NM_001081226	2310009B15Rik	0.0183622	-1.23935
NM_026940	Ydjc	0.0192186	-1.24086
NM_009212	Ighmbp2	0.00418811	-1.24133
NM_016957	Hmgn2	0.00117134	-1.24155
NM_177684	Zfp637	0.00941201	-1.24167
NM_007499	Atm	0.0164454	-1.24206
NM_001161623	Cdc45	0.00204015	-1.2422
NM_029211	Rnf121	0.0167029	-1.24306
NM_178772	Nceh1	0.0157254	-1.24314
NM_177066	Tnni3k	0.00834977	-1.24324
NM_001115010	Lin54	0.0176044	-1.2433
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NM_011137	LOC100503933	0.00362977	-1.24436
NM_001081431	Zfp498	0.0169391	-1.2456
NM_134123	Rbm16	0.00873891	-1.24563

NM_009054	Trim27	0.00454991	-1.24623
NM_172926	Snx14	0.00157045	-1.24775
NM_023844	Jam2	0.00928491	-1.24781
NM_172769	Sc5d	0.0181849	-1.24792
NM_172644	Dars2	0.0111837	-1.24796
NM_199016	Enpp4	0.00310046	-1.24866
NM_030147	Brd8	0.00428916	-1.24904
NM_001164574	Kbtbd3	0.00964487	-1.24927
NM_001161737	Siva1	0.0170945	-1.24968
NM_145823	Pitpnc1	0.0158173	-1.25013
NM_001042623	Phc1	0.0157333	-1.25078
NM_027423	Polr3b	0.0163592	-1.25103
NM_026714	Ccdc163	0.00609531	-1.2523
NM_027464	5730469M10Rik	0.0199983	-1.25275
NM_029936	Ddx10	0.00336299	-1.25316
NM_030004	Cryl1	0.0141233	-1.25654
NM_029581	Mtif3	0.0124369	-1.25667
NM_001164827	Zfyve19	0.0161868	-1.25672

NM_001047435	Pard6a	0.00590579	-1.25674
NM_001081195	Arid4a	0.00876668	-1.25706
NM_145823	Pitpnc1	0.0167393	-1.2573
NM_011327	Scp2	0.00551552	-1.25796
NM_019785	Actr10	0.00171814	-1.25874
NM_147220	Abca9	0.00454301	-1.25991
NM_021511	Rrs1	0.00917774	-1.26126
NM_021791	Doc2g	0.0084799	-1.26152
NM_001168505	Shoc2	0.00594837	-1.26187
NM_001110271	Abhd14a	0.0023346	-1.26267
NM_001081065	Zfp707	0.00323459	-1.26298
NM_175158	Utp20	0.00131834	-1.26338
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NM_001013577	1110054005Rik	0.00464441	-1.26449
NM_025652	Gtf3a	0.0198952	-1.26601
NM_001159905	Zfand2b	0.00969552	-1.26669
NM_001163557	Ppfibp2	0.0184194	-1.26748
NM_001171052	Mta3	0.01821	-1.26832

NM_177894	Fam154b	0.0122583	-1.26868
NM_001105667	Dtymk	0.00900023	-1.26915
NM_026951	Pex11c	0.00732156	-1.26986
NM_001035123	Setd6	0.00136919	-1.27261
NM_001082553	Rab27b	0.0189848	-1.27339
NM_029011	Pyroxd2	0.000391113	-1.27396
NM_172753	Csgalnact1	0.0166857	-1.27651
NM_026431	1810043G02Rik	0.00293789	-1.27674
NM_172684	Rsb1	0.0150906	-1.27723
NM_001042752	Neo1	0.00665099	-1.27897
NM_026984	Mll5	0.0123859	-1.27964
NM_019731	Nme4	0.00310238	-1.28029
NM_019869	Rbm14	0.0138859	-1.28046
NM_001161665	Kif26b	0.0187413	-1.28099
NM_146236	Tceal1	0.00883643	-1.28149
NM_172607	Naprt1	0.00769668	-1.28428
NM_029609	Lhpp	0.0156724	-1.28459
NM_145512	Sft2d2	0.00286474	-1.28775

NM_001145433	1810013D10Rik	0.00764842	-1.28899
NM_025923	Fancl	0.00208447	-1.28974
NM_001039351	Nolc1	0.00374739	-1.28988
NM_023140	Glr3	0.00233943	-1.29008
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NM_026442	Cmc1	0.0134591	-1.29169
NM_018818	Chm	0.00830198	-1.29202
NM_001159609	Lrrc57	0.00292895	-1.29319
NM_133990	Il13ra1	0.0177866	-1.29433
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NM_026494	Ppcs	0.0135528	-1.29823
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NM_001001333	Hexdc	0.019766	-1.31744
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NM_001081378	Kidins220	0.011637	-1.32044
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XM_003084677	Zfp383	0.0080667	-1.32232
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NM_001042671	Gpcpd1	0.00655575	-1.32784
NM_029857	Tmco4	0.0090207	-1.32961
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NM_028040	Rpusd4	0.00389296	-1.33242
NM_027827	Afmid	0.00106233	-1.33568

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NM_008584	Meox2	0.0099827	-1.34988
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NM_194335	Naif1	0.0142309	-1.35044
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NM_177700	Atmin	0.0129755	-1.36092
NM_175367	Ston2	0.0118527	-1.36504
NM_133740	Prmt3	0.00846368	-1.36666
NM_178113	Ncapd3	0.0126128	-1.36784
NM_009644	Ahrr	0.0175727	-1.3679
NM_001161712	Gcat	0.0195545	-1.36853
NM_028761	Parn	0.00440813	-1.3848
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NM_172404	Ccbl1	0.0110134	-1.55587