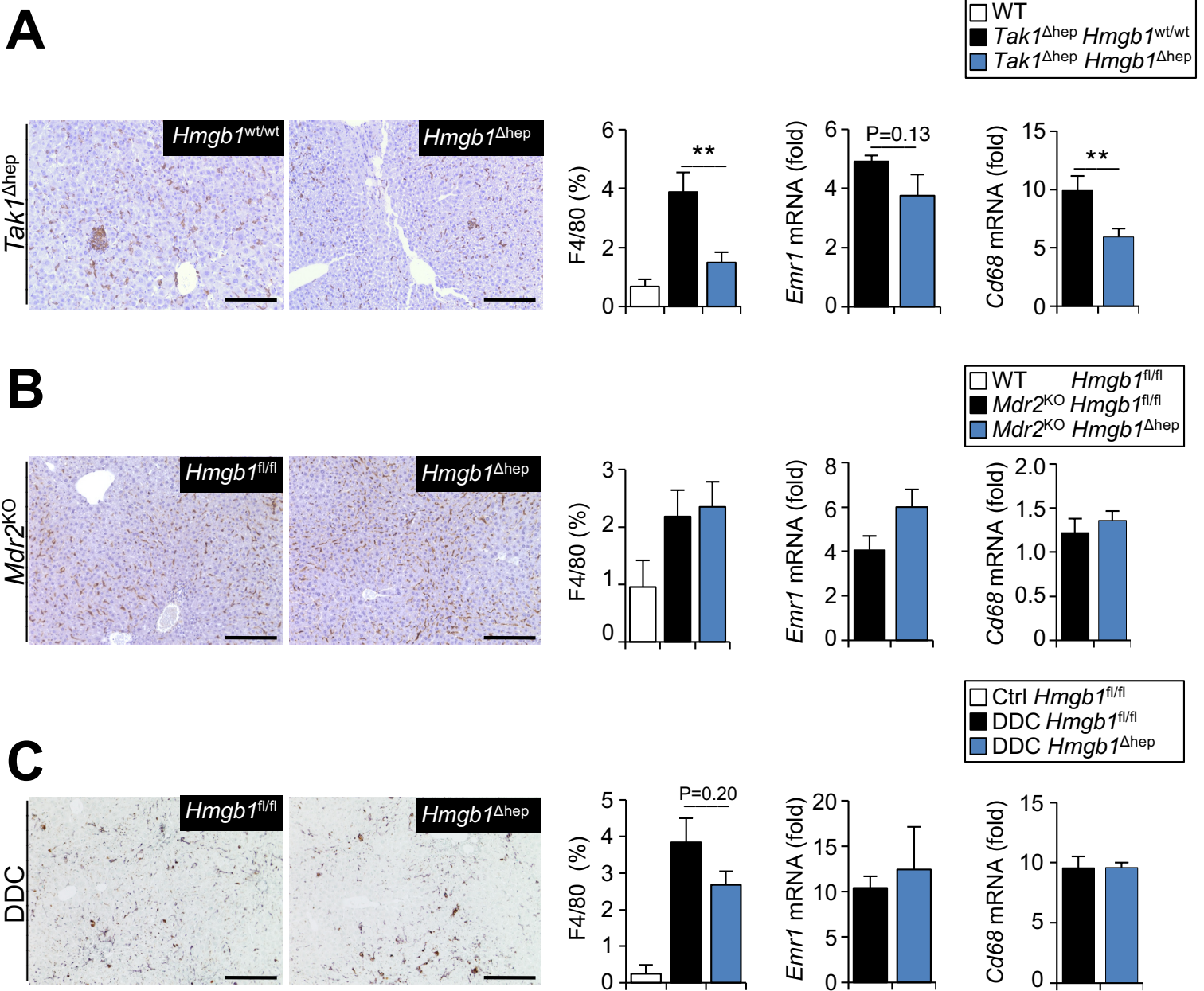
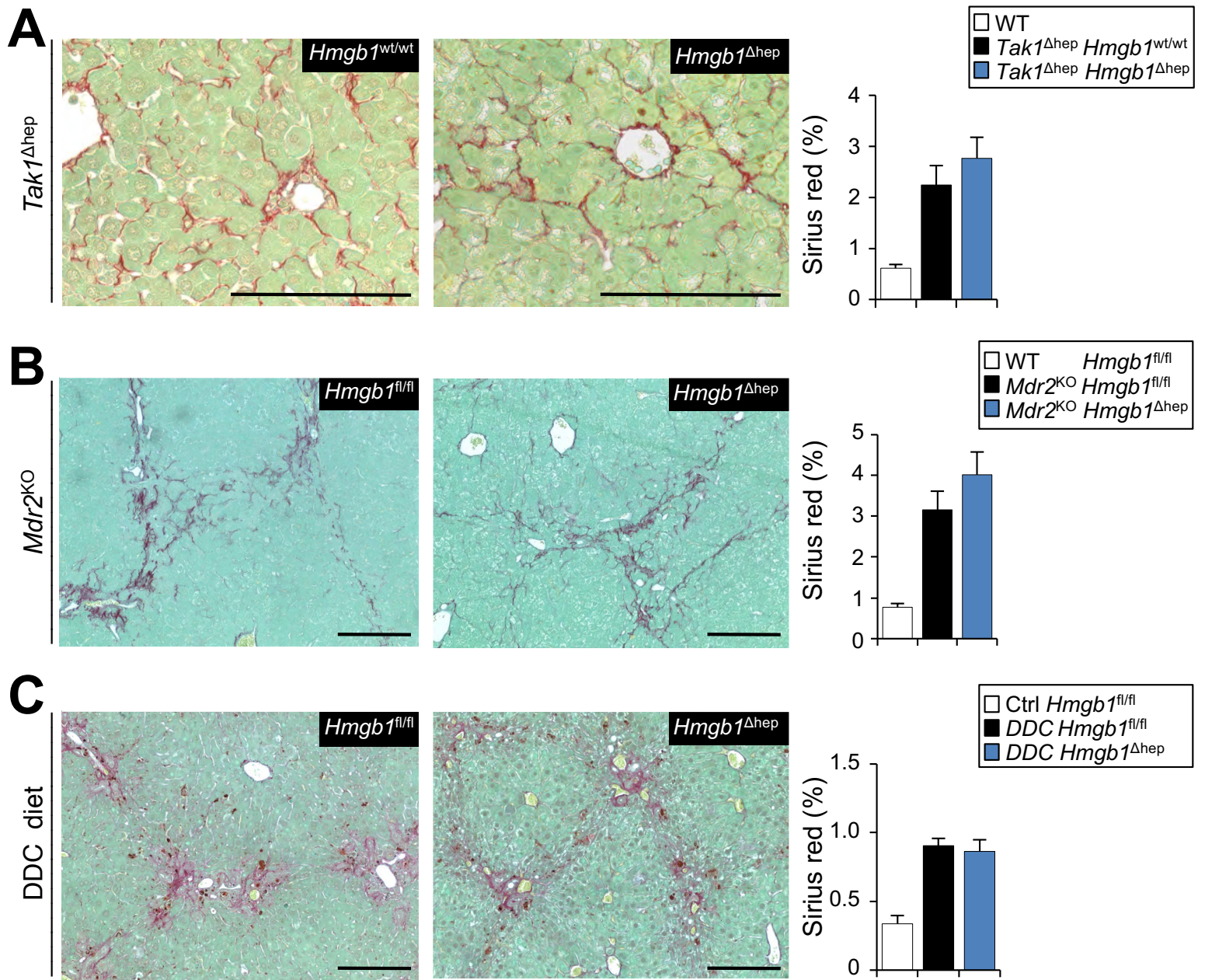


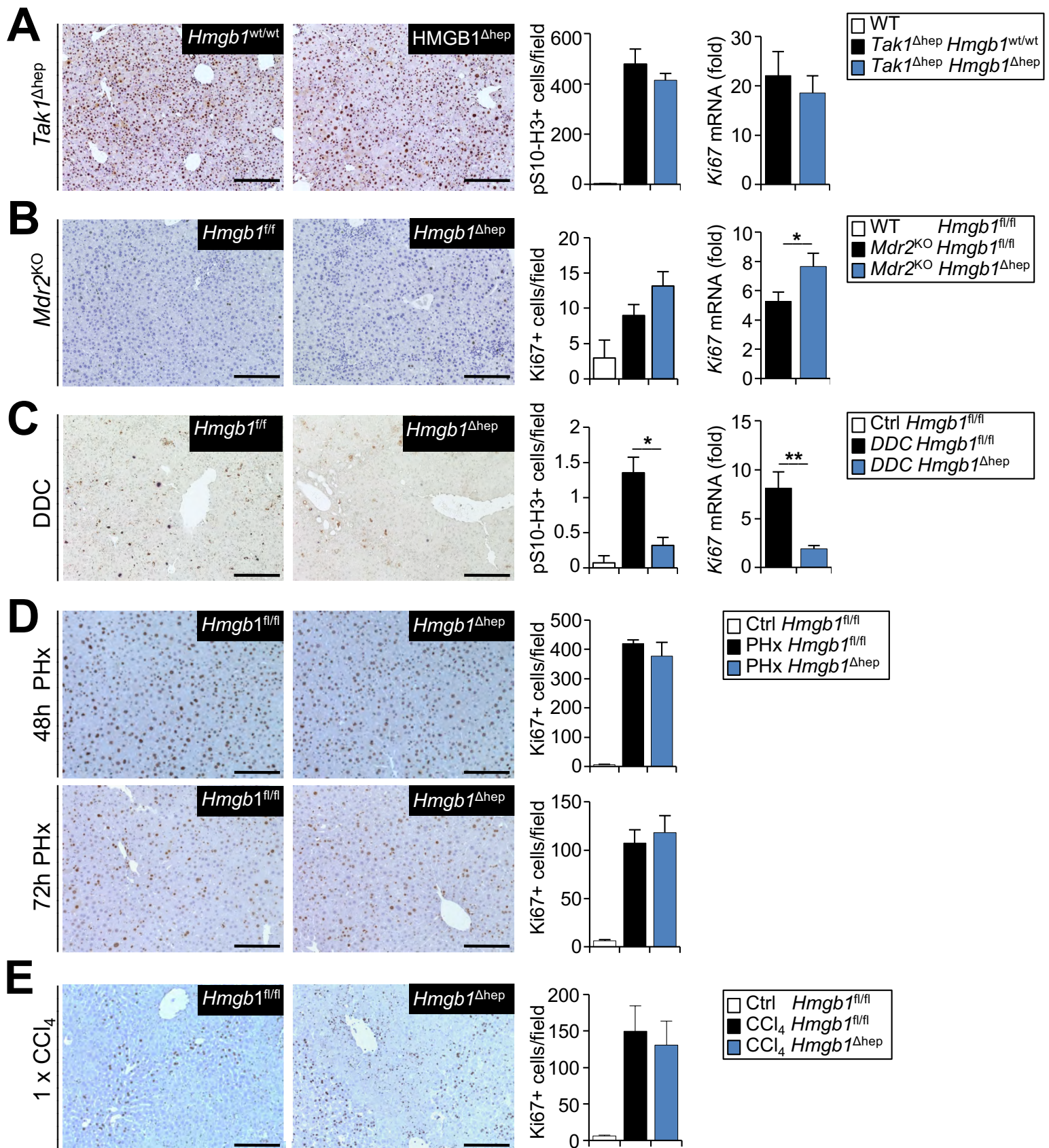
Supplementary Figure 1. Effect of HMGB1 deletion on neutrophil infiltration and inflammation in chronic liver injury. A-B. Ly6+ neutrophil and CD45+ leukocyte infiltration were determined by immunohistochemistry and Mpo qPCR, inflammation was determined by qPCR for *Il6*, *Tnf* and *Cd20* in *Hmgb1^{wt/wt}* and *Hmgb1^{Δhep}* mice in the *Tak1^{Δhep}* (n=9 and n=9 mice, respectively). C-D. Ly6+ neutrophil and CD45+ leukocyte infiltration were determined by immunohistochemistry and Mpo qPCR, inflammation was determined by qPCR for *Il6*, *Tnf* and *Cd20* in the *Mdr2^{KO}* model (n=10 and n=13 mice, respectively). E-F. Ly6+ neutrophil and CD45+ leukocyte infiltration were determined by immunohistochemistry and Mpo qPCR, inflammation was determined by qPCR for *Il6*, *Tnf* and *Cd20* in the DDC diet model (n=6 and n=9 mice, respectively). Data are expressed as means ± SEM. Statistical significance was determined by two-tailed t-test. * p<0.05; ** p<0.01. Scale bar 100 μm.



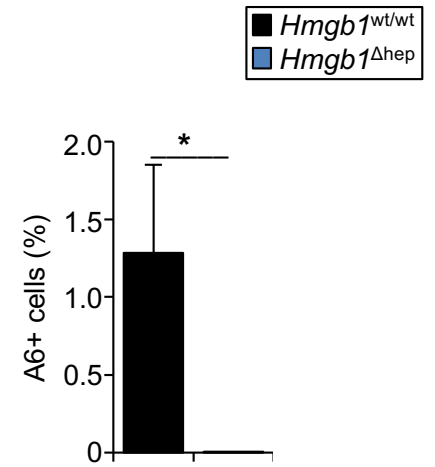
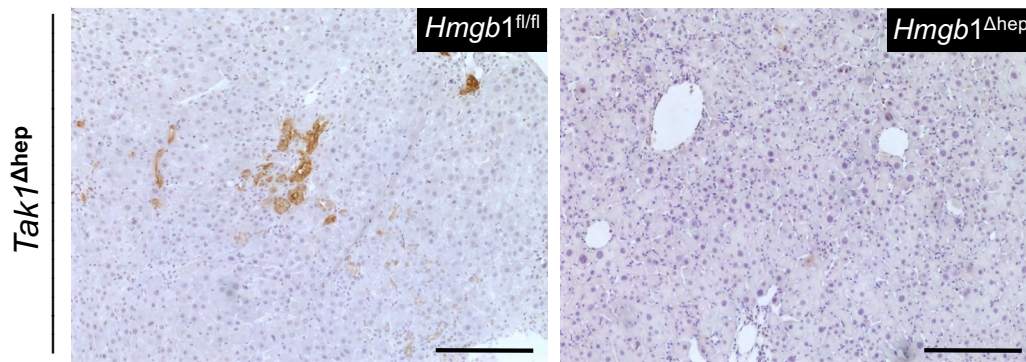
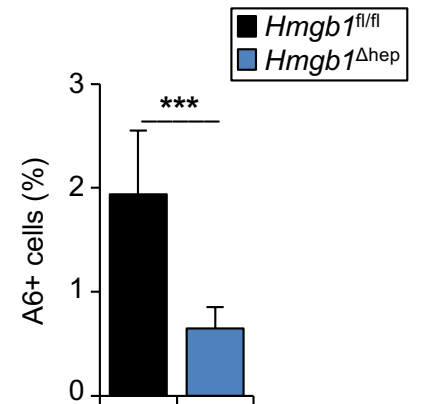
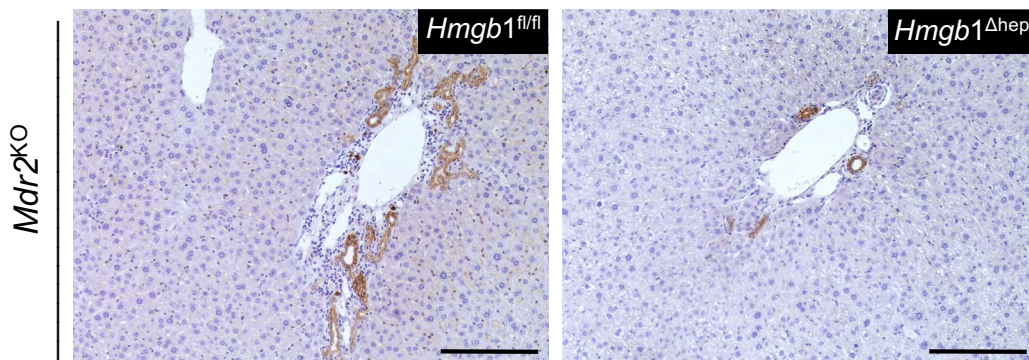
Supplementary Figure 2. Effect of HMGB1 on macrophage recruitment in chronic liver injury. A. Macrophage infiltration was determined by F4/80 immunohistochemistry as well as *Emr1* (encoding F4/80) and *Cd68* mRNA in wild-type (n=3), *Tak1*^{Δhep} *Hmgb1*^{wt/wt} (n=9) and in *Tak1*^{Δhep} *Hmgb1*^{Δhep} (n=9) mice. **B.** Macrophage infiltration was determined by F4/80 immunohistochemistry as well as *Emr1* and *Cd68* mRNA in wt *Hmgb1*^{fl/fl} (n=4), *Mdr2*^{KO} *Hmgb1*^{fl/fl} (n=10) and in *Mdr2*^{KO} *Hmgb1*^{Δhep} (n=13) mice. **C.** Macrophage infiltration was determined by F4/80 immunohistochemistry as well as *Emr1* and *Cd68* mRNA in untreated *Hmgb1*^{fl/fl} (n=3) as well as *Hmgb1*^{fl/fl} (n=6) and in *Hmgb1*^{Δhep} (n=9) mice treated with DDC diet. Data are expressed as means ± SEM. qPCR data are expressed as fold induction compared to normal liver. Statistical significance was determined by two-tailed t-test. ** p<0.01. Scale bar 100 μm.



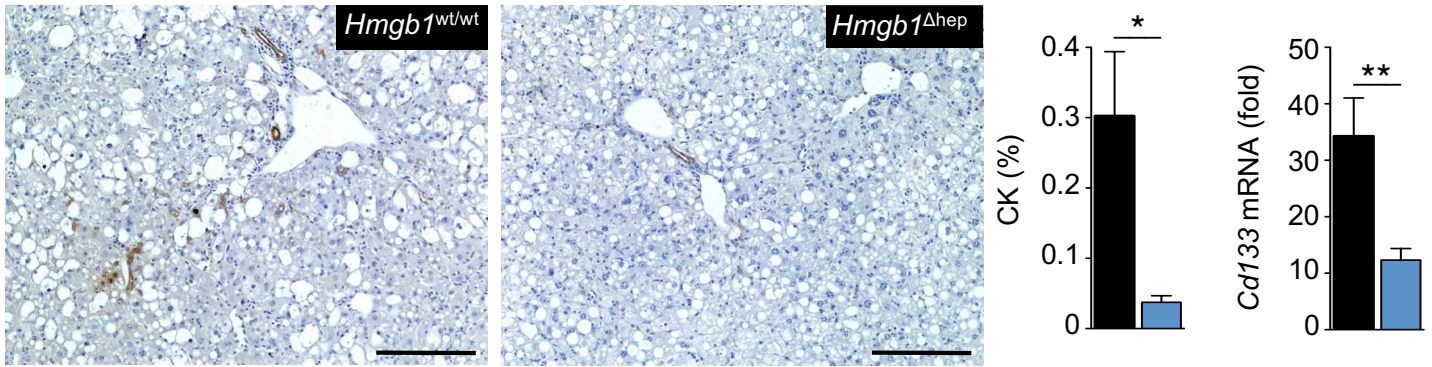
Supplementary Figure 3. Effect of HMGB1 deletion on liver fibrosis. A-C. Liver fibrosis, determined by Sirius red staining, was quantified in *Hmgb1^{fl/fl}* and *Hmgb1^{Δhep}* mice in the *Tak1^{Δhep}* (A, n=9 and n=9 mice), *Mdr2^{KO}* (B, n=10 and n=13 mice) and DDC models (C, n=6 and n=9 mice). Data are expressed as means ± SEM. Statistical significance was determined by two-tailed t-test. Scale bar 100 μm.



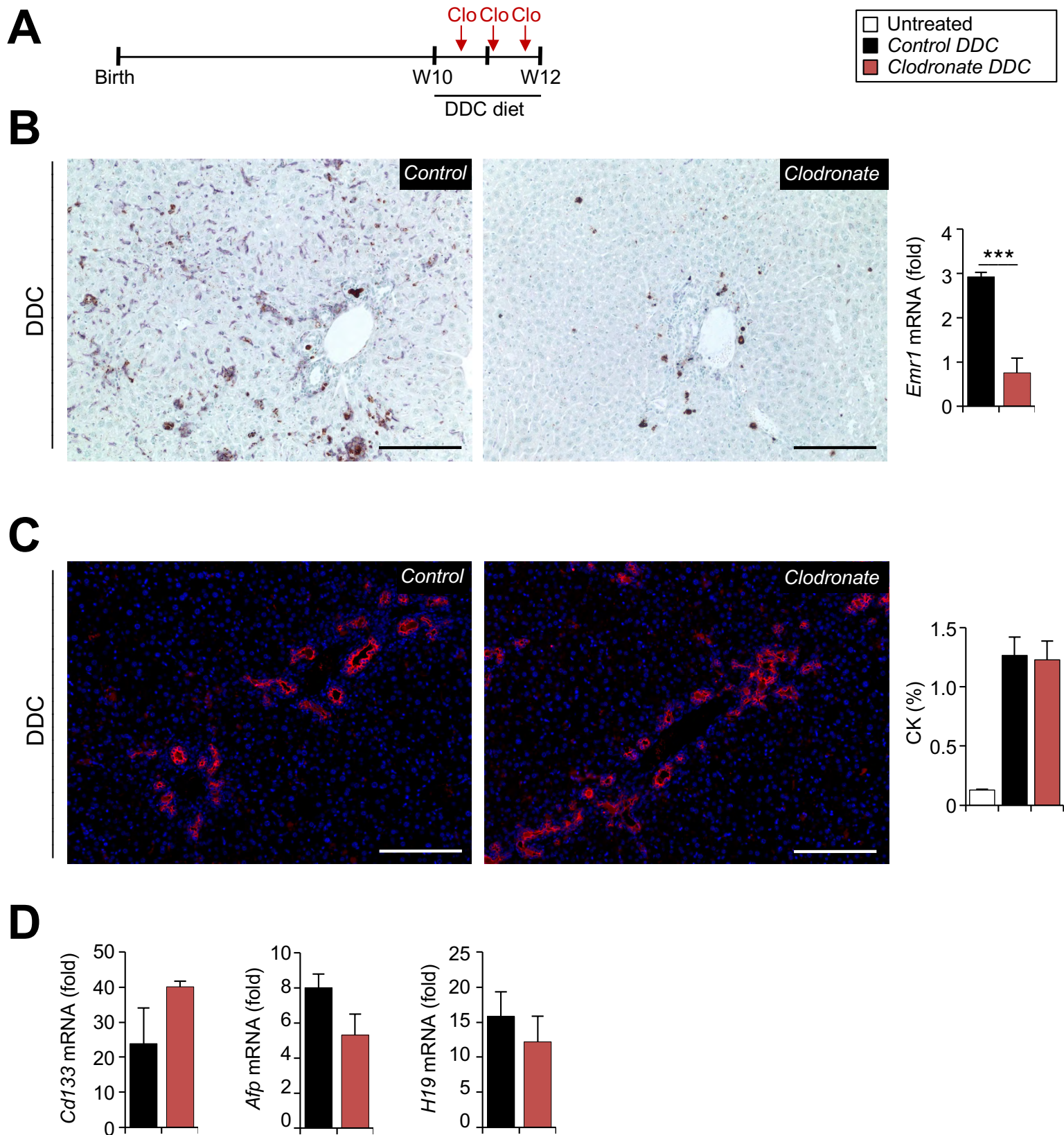
Supplementary Figure 4. Effect of HMGB1 deletion on hepatocyte proliferation. A - C. Proliferation, determined by Ki-67 or pS10-H3 immunohistochemistry and qPCR was quantified *Hmgb1*^{wt/wt} and *Hmgb1*^{Δhep} mice in the *Tak1*^{Δhep} (A, n=9 and n=9 mice, respectively), in *Hmgb1*^{fl/fl} and *Hmgb1*^{Δhep} in the *Mdr2*^{KO} model (B, n=10 and n=13 mice, respectively) and the DDC diet model (n=6 and n=9 mice, respectively). **D.** Hepatocyte proliferation, determined by Ki-67 immunohistochemistry, was quantified in *Hmgb1*^{fl/fl} (n=5) and *Hmgb1*^{Δhep} (n=8) mice subjected to two-thirds partial hepatectomy at the indicated time points. **E.** Hepatocyte proliferation, determined by Ki-67 immunohistochemistry, was quantified in *Hmgb1*^{fl/fl} (n=7) and *Hmgb1*^{Δhep} (n=6) mice 48 hours after a single injection of CCl₄ (0.5 ul/g, dissolved in corn oil, i.p.). Data are expressed as means ± SEM. qPCR data are expressed as fold induction compared to normal liver. Statistical significance was determined by two-tailed t-test. * p<0.05; ** p<0.01. Scale bar 100 μm.

A**B**

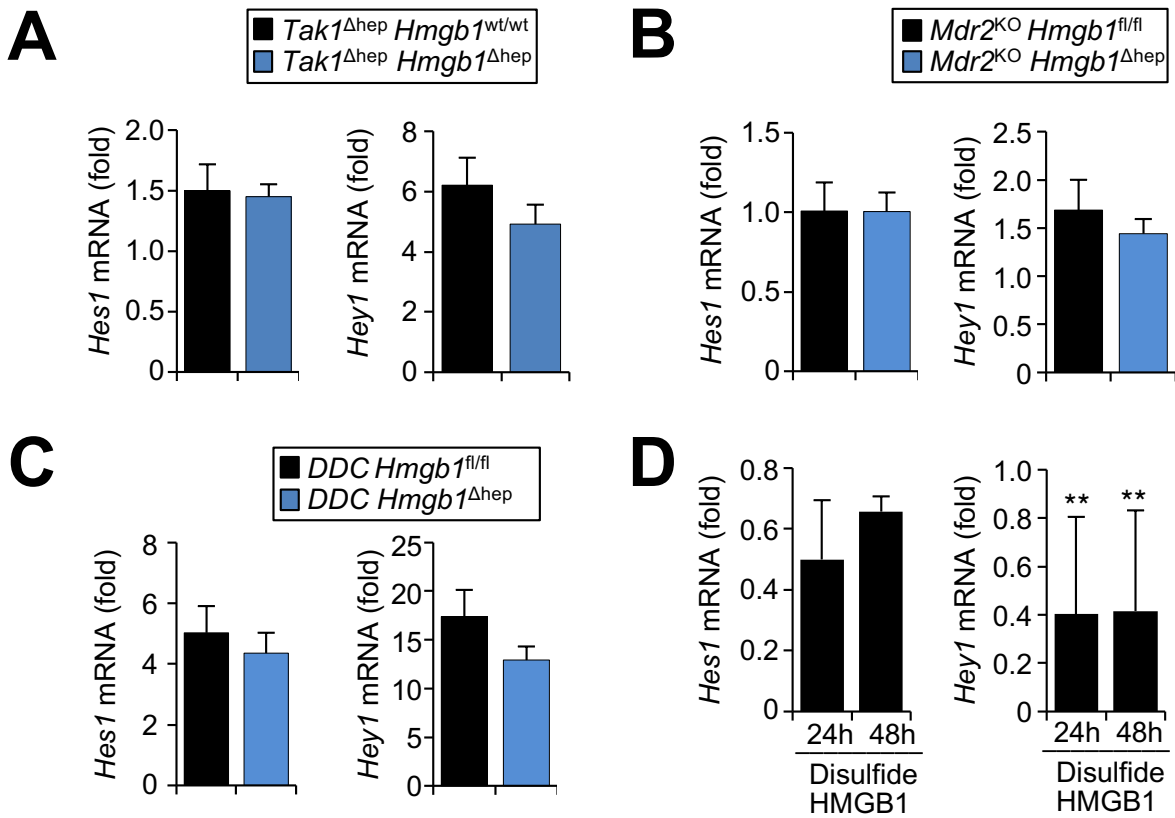
Supplementary Figure 5. Expression of A6 in *Hmgb1*^{Δhep} mice. A-B. A6-positive cells were detected by immunohistochemistry in *Hmgb1*^{fl/fl} and *Hmgb1*^{Δhep} mice in the TAK1^{Δhep} (A, n=5 and n=5, respectively) and *Mdr2*^{KO} (B, n=10 and n=13, respectively). Data are expressed as means ± SEM. Statistical significance was determined by two-tailed t-test. *p<0.05; ***p<0.001. Scale bar 100 μm.

A

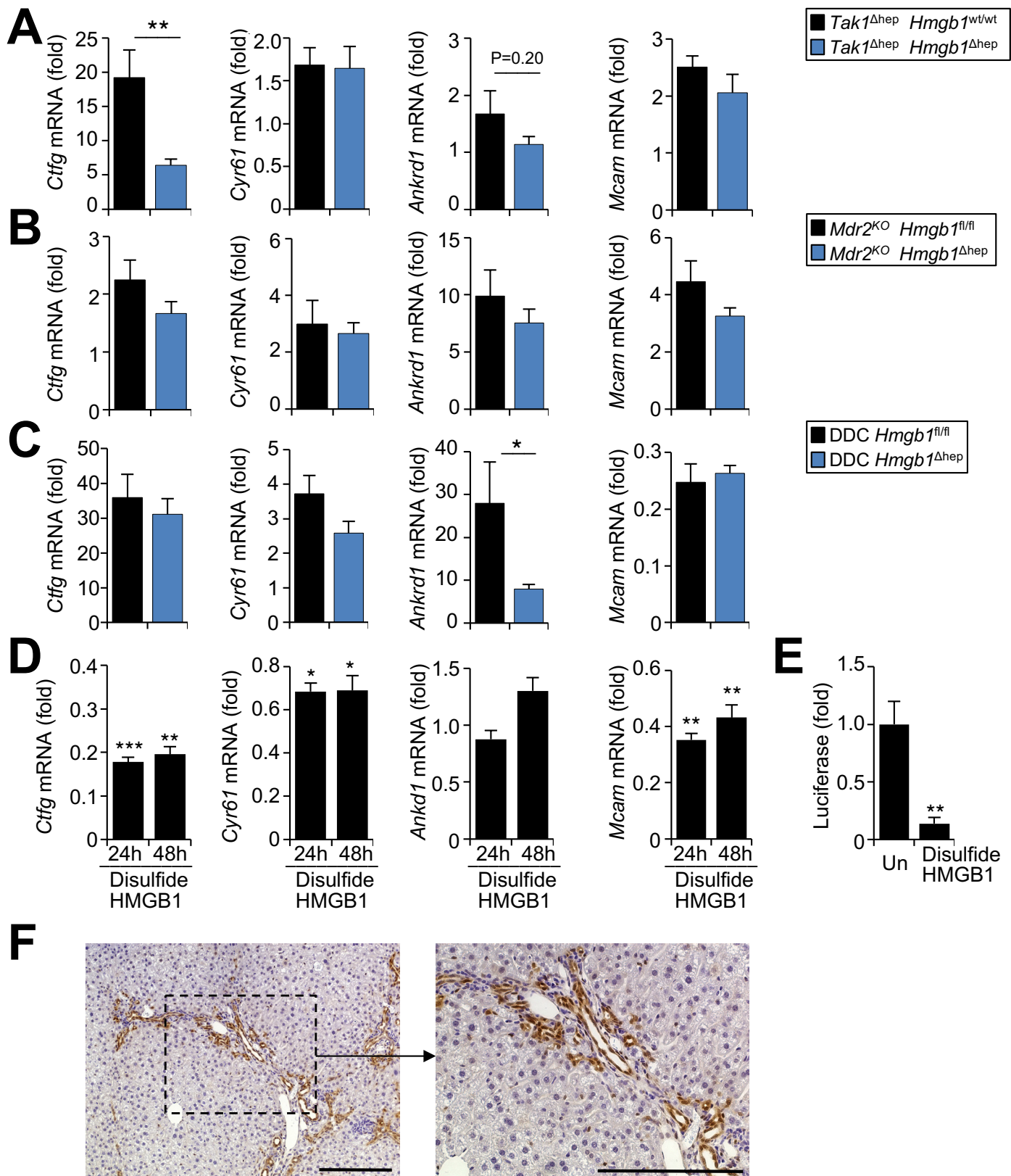
Supplementary Figure 6. HMGB1 is required for ductular reactions. Following three weeks of MCDE diet, *Hmgb1*^{Δhep} mice (n=7) showed reduction of cytokeratin-positive ductular cells (D), and lower expression of *Cd133* mRNA in comparison to *Hmgb1*^{fl/fl} controls (n=7). All data are expressed as means ± SEM. qPCR data are shown as fold induction compared to normal liver. Statistical significance was determined by two-tailed t-test. * p<0.05; ** p<0.01. Scale bar 100 μm.



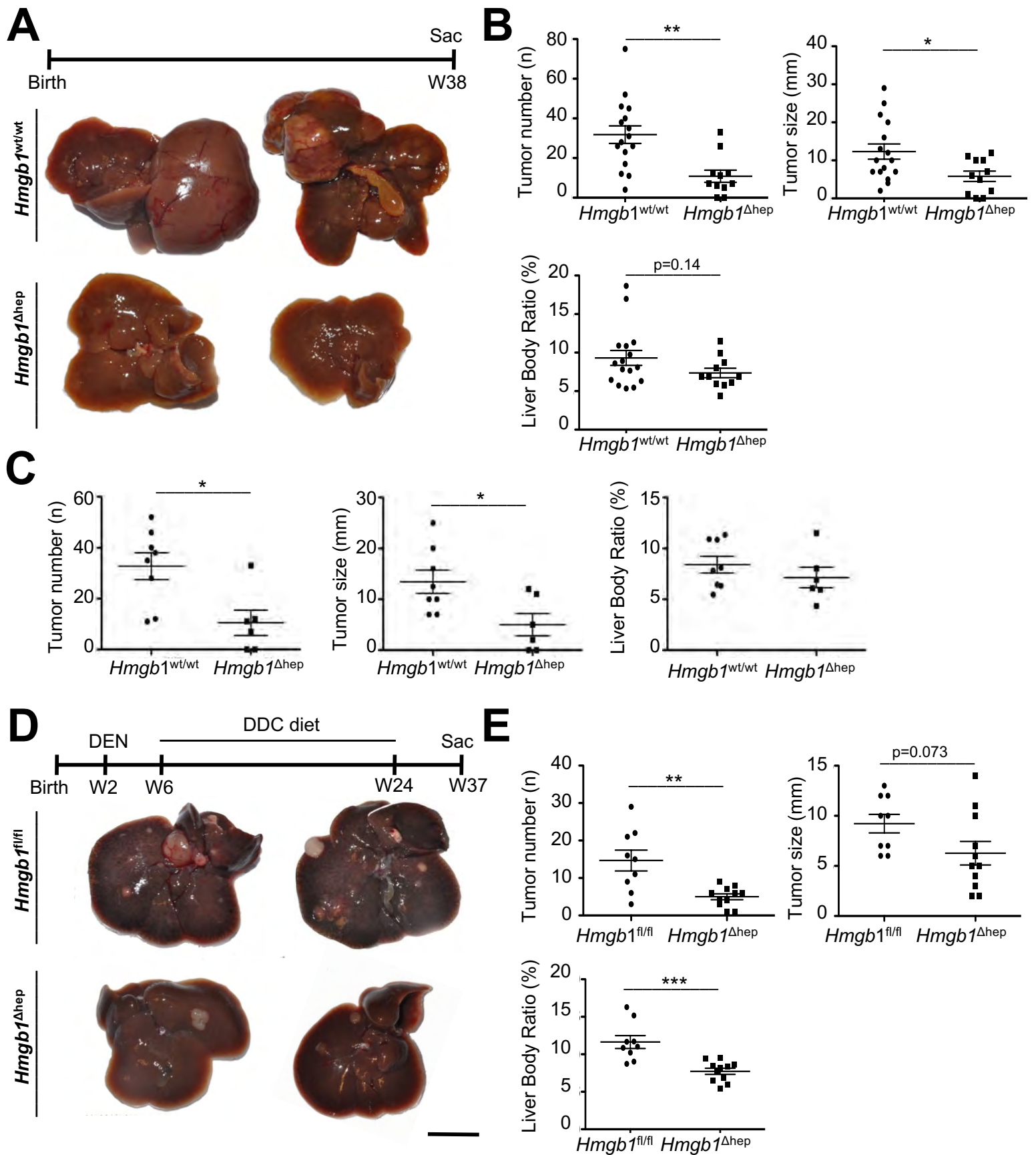
Supplementary Figure 7. Effect of macrophage ablation on ductular reactions. **A.** Macrophages were ablated in DDC diet treated mice by intraperitoneal injection of liposomal clodronate (n=7 mice) or control liposomes (n=11 mice) as depicted. **B.** Macrophages were efficiently ablated by liposomal clodronate as demonstrated by F4/80 immunohistochemistry and qPCR for *Emr1* mRNA (encoding F4/80). **C-D.** Macrophage ablation by liposomal clodronate did not affect ductular reactions in DDC diet-treated mice as demonstrated by similar immunohistochemical staining for cytokeratin (C) or qPCR for *Cd133*, *Afp* and *H19* mRNA (D) Data are expressed as means \pm SEM. qPCR data are expressed as fold induction compared to normal liver. Statistical significance was determined by two-tailed t-test. *** $p < 0.001$. Scale bar 100 μ m



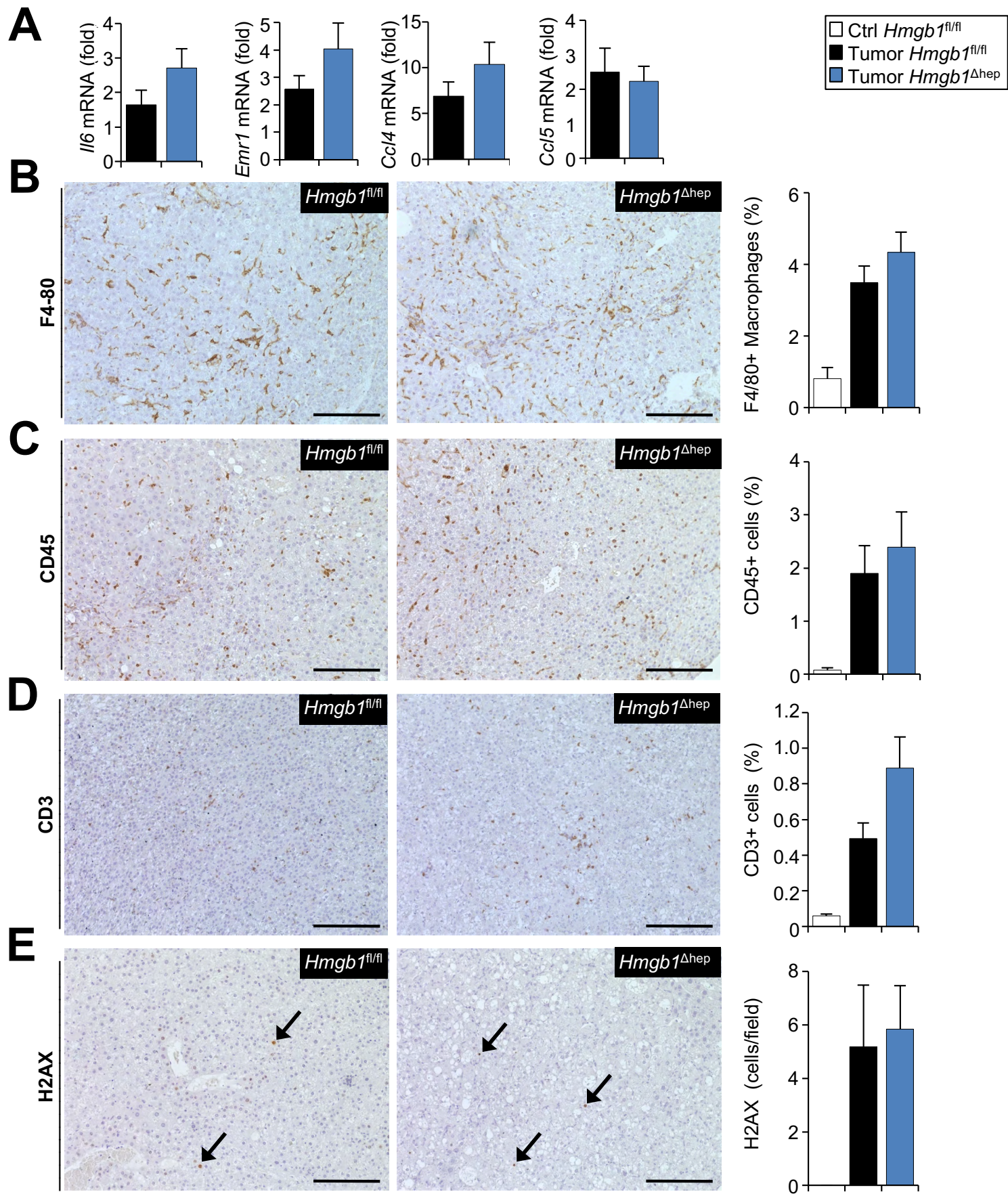
Supplementary Figure 8. Expression Notch target genes in *Hmgb1*^{Δhep} mice and HMGB1-treated BMOL cells. A-C. Notch target genes *Hes1* and *Hey1* were determined by qPCR in the *TAK1*^{Δhep} model (A) in *Hmgb1*^{wt/wt} (n=9 mice) and *Hmgb1*^{Δhep} (n=9 mice); (B) in the *Mdr2*^{KO} model in *Hmgb1*^{fl/fl} (n=9) and *Hmgb1*^{Δhep} (n=13) mice; and in the DDC diet model (C) in *Hmgb1*^{fl/fl} (n=6) and *Hmgb1*^{Δhep} (n=9) mice. D. Notch target genes *Hes1* and *Hey1* were determined by qPCR in BMOL cells treated with disulfide HMGB1 (2 μg/ml). Data are expressed as means ± SEM and shown as fold induction in comparison to normal liver (A-C) or untreated BMOL cells (D). Statistical significance was determined by two-tailed t-test (*Hmgb1*^{wt/wt} vs. *Hmgb1*^{Δhep} in A-C, and 24h- and 48h-treated cells vs untreated cells in D). *p<0.05; ** p<0.01; *** p<0.001



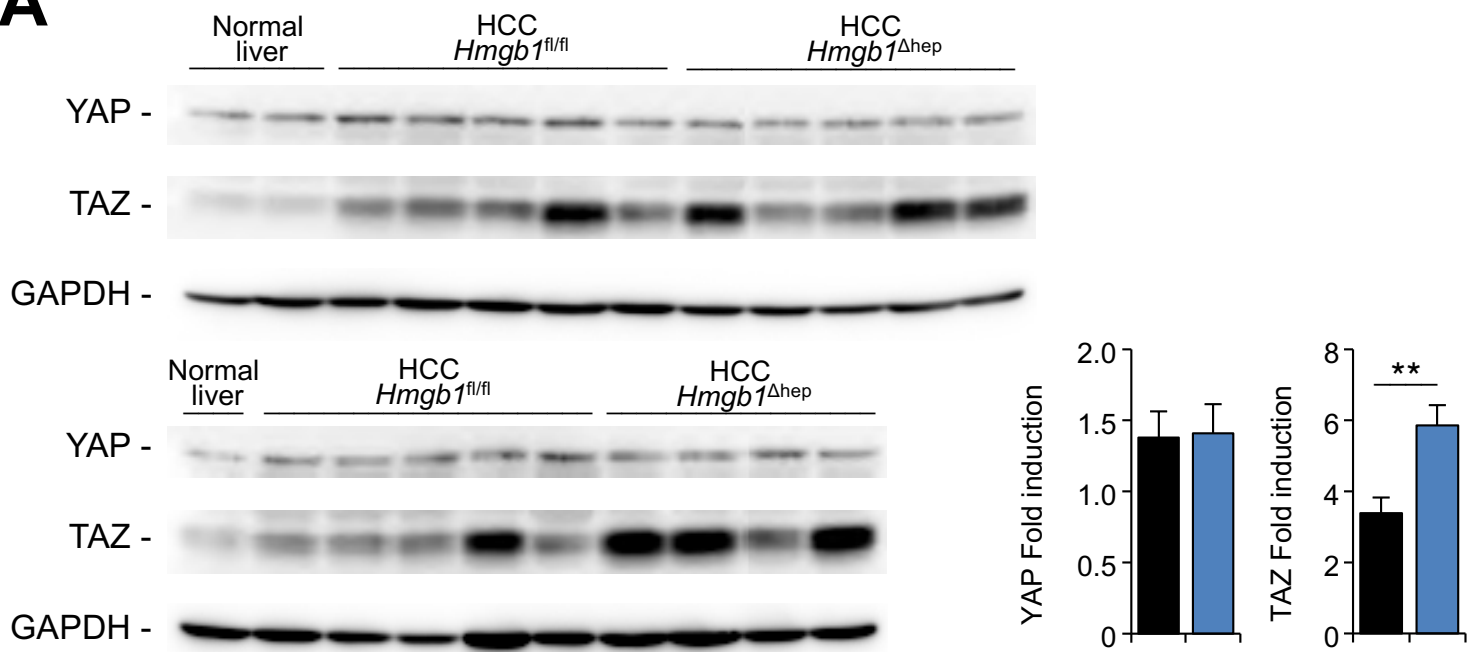
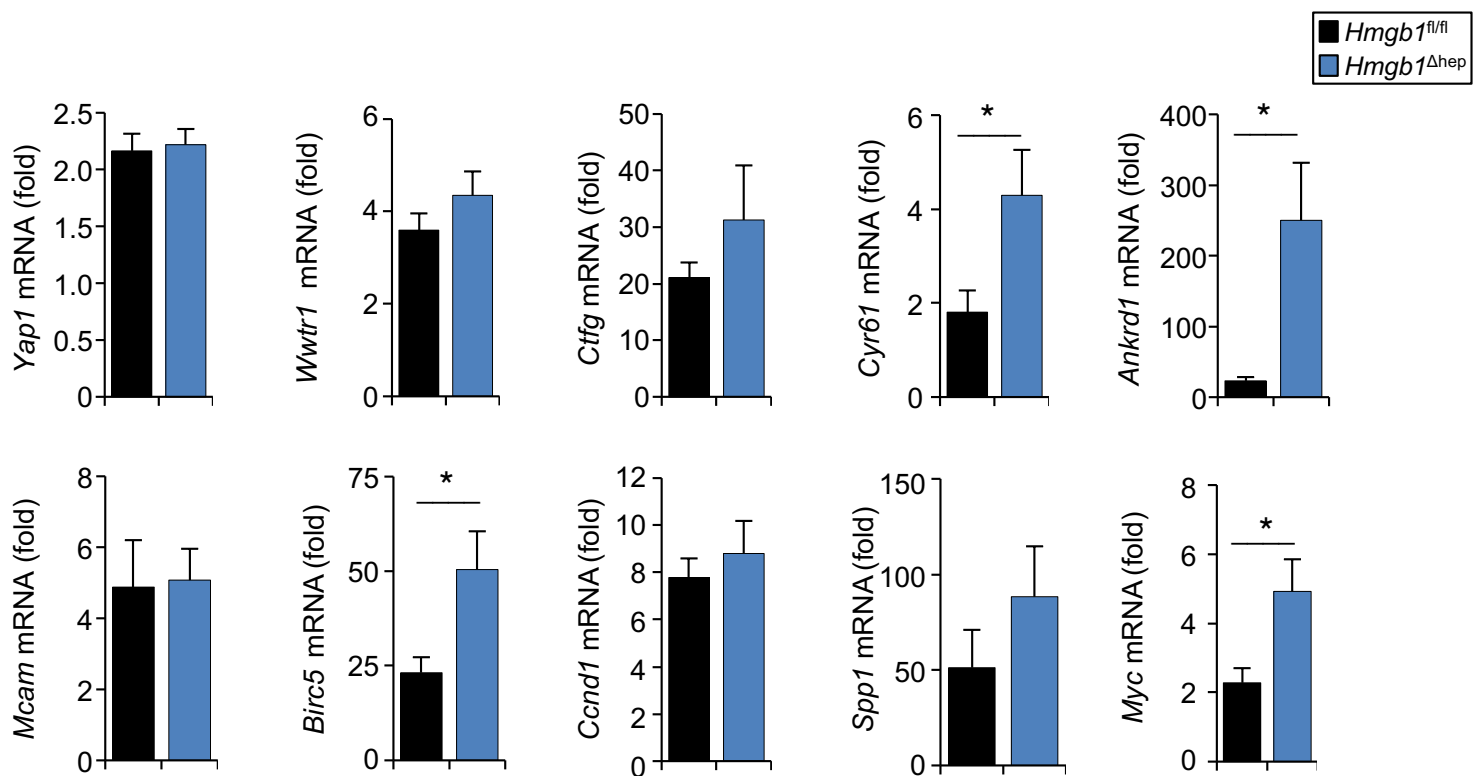
Supplementary Figure 9. Expression of Yap target genes in *Hmgb1*^{Δhep} mice and HMGB1-treated BMOL cells. **A.** Yap target genes *Ctfg*, *Cyr61*, *Ankrd1* and *Mcam* were determined by qPCR in *Hmgb1*^{wt/wt} TAK1^{Δhep} mice (n=11 mice) and *Hmgb1*^{Δhep} TAK1^{Δhep} mice (n=9 mice). **B.** Yap target genes *Ctfg*, *Cyr61*, *Ankrd1* and *Mcam* were determined by qPCR in *Hmgb1*^{fl/fl} *Mdr2*^{KO} (n=9) and *Hmgb1*^{Δhep} *Mdr2*^{KO} (n=13) mice. **C.** Yap target genes *Ctfg*, *Cyr61*, *Ankrd1*, and *Mcam* were determined by qPCR in *Hmgb1*^{fl/fl} (n=6) and *Hmgb1*^{Δhep} (n=9) mice treated with DDC diet. **D.** Yap target genes *Ctfg*, *Cyr61*, *Ankrd1*, and *Mcam* were determined by qPCR in BMOL cells treated with disulfide HMGB1 (2 μg/ml). **E.** Yap luciferase reporter was performed in BMOL cells treated with disulfide HMGB1 for 48 hours. **F.** YAP was determined by immunohistochemistry. Data are expressed as means ± SEM and shown as fold induction in comparison to normal liver (A-C) or untreated BMOL cells (D,E). Statistical significance was determined by two-tailed t-test (*Hmgb1*^{wt/wt} vs. *Hmgb1*^{Δhep} in A-C, and 24h- and 48h-treated cells vs untreated cells in D,E). *p<0.05; **p<0.01; ***p<0.001. Scale bar 100 μm.



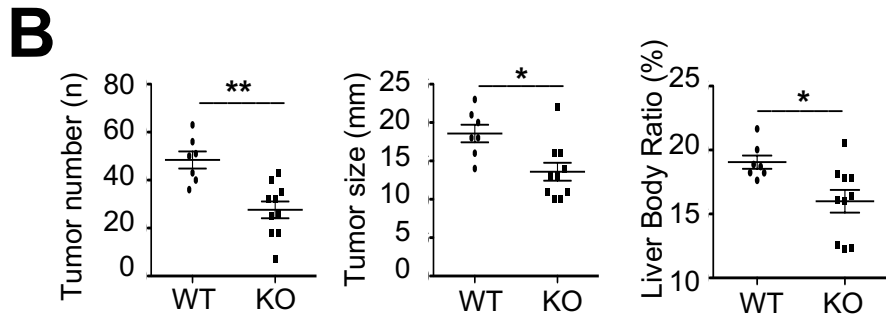
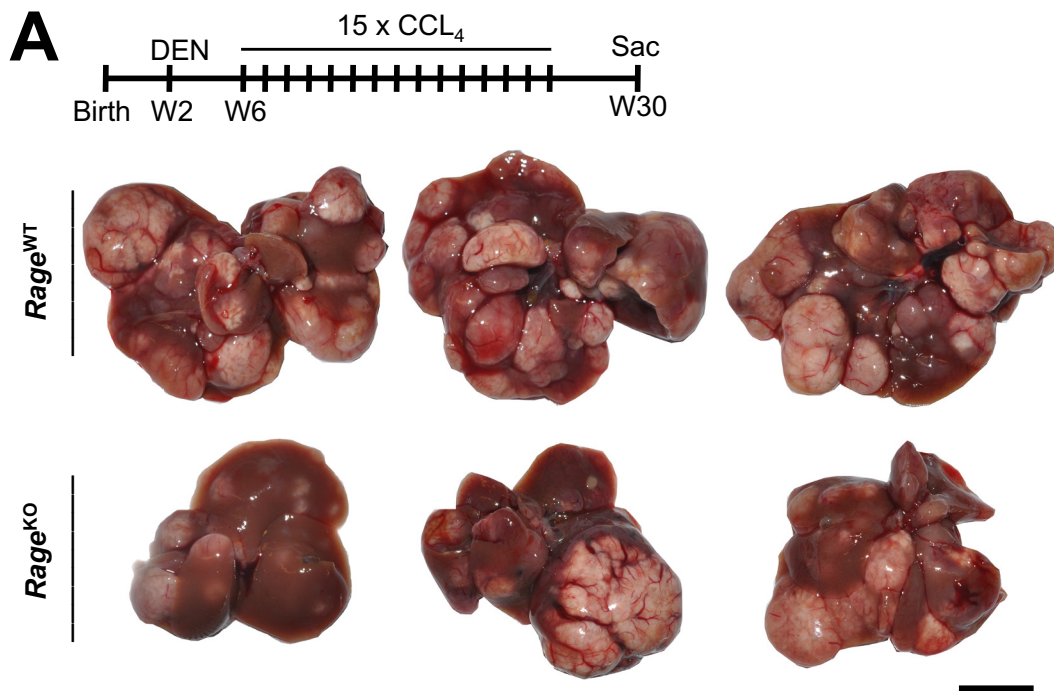
Supplementary Figure 10. HMGB1 promotes hepatocarcinogenesis in models with chronic liver injury. **A- C.** *Tak1*^{Δhep} that were either *Hmgb1* wild-type (*Hmgb1*^{wt/wt}, n=16) or expressed floxed *Hmgb1* alleles (*Hmgb1*^{Δhep}, n=11) were sacrificed at the indicated times (A). Livers were photographed (A) and tumor number, size and liver body weight ratio were determined (B). The same analysis was performed using only mice of male gender in both groups (C). **D- E.** Male *Hmgb1*^{fl/fl} (n=9) and *Hmgb1*^{Δhep} (n=11) mice were treated with DEN followed by treatment with DDC diet and sacrificed as indicated (D). Livers were photographed (D) and tumor number, size and liver body weight ratio were determined (E). Data are expressed as means ± SEM. Statistical significance was determined by two-tailed t-test. * p<0.05; ** p<0.01; *** p<0.001. Scale bar 1cm.



Supplementary Figure 11. HMGB1 does not promote inflammation, inflammatory cell infiltration or genotoxic stress during hepatocarcinogenesis. A- E. Tumors from DEN+15xCCl₄-treated *Hmgb1*^{fl/fl} (n=12) and *Hmgb1*^{Δhep} (n=12) mice were analyzed by immunohistochemistry and qPCR to determine expression of inflammatory genes *Il6*, *Emr1*, *Ccl4* and *Ccl5* (A), infiltration of F4/80- positive macrophages (B), infiltration of CD45-positive leukocytes (C), infiltration of CD3- positive T cells (D) and expression of genotoxic stress marker H2AX (E, arrows pointing towards positive cells). Data are expressed as means ± SEM. qPCR data is expressed as fold induction compared to normal liver. Statistical significance was determined by two-tailed t-test. Scale bar 100 μm.

A**B**

Supplementary Figure 12. Expression of Yap and YAP target genes in *Hmgb1^{Δhep}* mice and HMGB1-treated HCC. A. Expression of TAZ and YAP was determined by western blot and quantified in normal liver (n=3) and DEN+CCl₄-induced HCC from HCC *Hmgb1^{fl/fl}* mice (n=10) or HCC from HCC from *Hmgb1^{Δhep}* mice (n=9). TAZ and YAP levels are expressed in comparison to normal liver **B.** Expression of *Yap1*, *Wwtr1* (encoding TAZ), YAP target genes *Ctfg*, *Cyr61*, *Ankrd1*, *Mcam*, *Birc5*, *Ccnd1*, *Spp1* and *Myc* was determined in normal liver (n=3) and DEN+CCl₄-induced HCC from HCC *Hmgb1^{fl/fl}* mice (n=12) or HCC from HCC from *Hmgb1^{Δhep}* mice (n=12). Statistical significance was determined by two-tailed t-test. * p<0.05 ** p<0.01.



Supplementary Figure 13. RAGE promotes hepatocarcinogenesis. A-B. Male wild-type (WT, n=7) and RAGE-deficient (*Rage*^{KO}, n=10) mice were treated with DEN plus 15 injections of CCl₄ as indicated. (A). Livers were photographed (A) and tumor number, size and liver body weight ratio were determined (B). Data are expressed as means ± SEM. Statistical significance was determined by two-tailed t-test. * p<0.05; ** p<0.01. Scale bar 1cm.

Supplementary Table 1. Gene expression changes between HCC HMGB1^{Δhep} (n=6) and HCC HMGB1^{fl/fl} (n=6) and between HCC HMGB1^{fl/fl} (n=6) and normal liver (n=3). Shown are genes, determined by RNA sequencing, with (fdr) ≤ 0.05, an absolute log₂ fold (log₂FC) change ≥ 0.6 and restriction to the twelve most significant pathways, as determined by iPathwayGuide, plus progenitor and oncofetal genes *Afp*, *H19* and *Prom1*.

GENE SYMBOL	log2FC (HCC HMGB1^{Δhep} vs HCC HMGB1^{fl/fl})	FDR (HCC HMGB1^{Δhep} vs HCC HMGB1^{fl/fl})	log2FC (HCC HMGB1^{fl/fl} vs. normal liver)	FDR (HCC HMGB1^{fl/fl} vs. normal liver)
<i>A4galt</i>	0.61	NA	2.18	2.78E-03
<i>Aadat</i>	2.10	3.97E-14	-3.05	2.72E-32
<i>Aass</i>	0.65	2.29E-01	-2.15	9.88E-17
<i>Abat</i>	1.15	1.03E-02	-3.05	1.22E-22
<i>Acaa1a</i>	0.74	2.57E-02	-1.25	1.66E-06
<i>Acaa1b</i>	2.10	5.58E-07	-2.74	3.19E-30
<i>Acaa2</i>	0.47	1.73E-01	-1.19	3.66E-12
<i>Acacb</i>	0.78	1.34E-01	-1.66	2.19E-10
<i>Acad8</i>	0.67	3.83E-04	-1.32	1.56E-14
<i>Acadl</i>	0.36	1.41E-01	-0.85	2.13E-06
<i>Acadm</i>	0.71	5.49E-05	-1.12	2.49E-07
<i>Acads</i>	0.61	1.61E-02	-1.15	2.37E-07
<i>Acadsb</i>	0.93	1.61E-03	-2.06	2.54E-30
<i>Acadvl</i>	0.60	5.90E-03	-1.57	1.72E-22
<i>Acat1</i>	0.83	3.71E-06	-1.58	1.26E-15
<i>Acer2</i>	-0.97	1.03E-02	1.79	1.71E-09
<i>Acmsd</i>	-1.07	3.11E-02	0.66	2.66E-02
<i>Aco1</i>	0.71	1.30E-03	-1.49	1.18E-14
<i>Acot1</i>	2.13	3.69E-05	-3.28	2.03E-12
<i>Acot2</i>	1.18	2.32E-05	-0.11	7.28E-01
<i>Acot3</i>	2.86	7.53E-07	-2.07	3.43E-04
<i>Acot4</i>	0.82	7.68E-02	-1.13	3.47E-04
<i>Acot8</i>	0.17	6.69E-01	-0.69	8.66E-05
<i>Acox1</i>	1.22	1.02E-02	-2.19	2.58E-21
<i>Acox3</i>	0.57	1.79E-02	-1.13	4.33E-10
<i>Acs11</i>	0.95	2.81E-02	-2.77	8.18E-35
<i>Acs14</i>	-0.75	3.09E-02	0.96	3.05E-05
<i>Acs16</i>	0.54	NA	-2.53	2.04E-03
<i>Acsm1</i>	0.89	6.46E-03	-2.13	2.68E-12
<i>Acsm2</i>	2.33	NA	-4.47	7.57E-18
<i>Acsm3</i>	1.08	1.18E-02	-2.09	1.05E-08

<i>Acsm5</i>	1.52	1.01E-04	-2.26	1.43E-10
<i>Acss1</i>	-0.14	8.74E-01	1.34	2.01E-02
<i>Acss2</i>	0.80	4.84E-02	-1.64	3.90E-07
<i>Acss3</i>	1.40	7.50E-02	-4.62	2.90E-17
<i>Actb</i>	-0.44	1.00E-01	1.23	1.32E-05
<i>Actn1</i>	-0.82	8.18E-04	1.11	2.37E-11
<i>Acvr1b</i>	-0.32	5.97E-01	-0.62	4.04E-02
<i>Acvr2a</i>	0.16	5.75E-01	-0.87	1.23E-05
<i>Adc</i>	-1.47	1.51E-05	0.69	8.80E-02
<i>Adh4</i>	1.71	1.20E-06	-3.11	8.25E-23
<i>Adh5</i>	0.62	3.43E-02	-0.98	3.93E-05
<i>Adh7</i>	0.54	2.53E-01	-1.08	8.16E-05
<i>Adi1</i>	0.51	5.15E-02	-1.14	3.17E-07
<i>Adipor2</i>	0.86	5.94E-03	-1.97	2.24E-18
<i>Adk</i>	0.65	8.68E-02	-1.26	1.05E-04
<i>Adra1a</i>	2.44	5.43E-08	-4.07	3.61E-22
<i>Adssl1</i>	-0.55	2.94E-01	-0.60	2.52E-02
<i>Afmid</i>	0.76	1.50E-02	-1.85	1.84E-13
<i>Afp</i>	-1.45	2.57E-02	5.97	2.40E-90
<i>Agmat</i>	1.18	3.13E-03	-1.77	4.44E-11
<i>Agpat1</i>	0.10	8.19E-01	0.85	9.74E-04
<i>Agpat2</i>	0.42	2.26E-01	-1.09	5.59E-04
<i>Agpat4</i>	0.60	NA	1.09	2.12E-02
<i>Agpat6</i>	0.40	2.76E-01	-1.48	1.89E-48
<i>Agphd1</i>	0.98	6.06E-03	-2.58	2.23E-18
<i>Agxt</i>	-0.64	3.28E-01	-1.13	2.00E-03
<i>Agxt2</i>	0.16	8.17E-01	-1.05	2.06E-03
<i>Agxt2l1</i>	1.38	1.33E-02	-4.24	2.43E-18
<i>Ahcy</i>	0.83	9.71E-02	-1.63	2.81E-08
<i>Ahcyl1</i>	0.30	2.38E-03	-0.66	1.05E-07
<i>Ahcyl2</i>	0.80	1.28E-03	-1.35	4.53E-07
<i>Ak1</i>	-1.29	5.30E-02	2.61	5.33E-05
<i>Ak2</i>	0.44	1.84E-01	-0.76	2.24E-03
<i>Ak7</i>	-2.44	1.45E-03	2.24	1.65E-02
<i>Ak8</i>	-0.31	8.20E-01	2.45	3.70E-02
<i>Akr1b10</i>	-0.82	1.51E-03	2.17	1.36E-13
<i>Akr1b7</i>	-1.80	8.60E-04	6.07	4.71E-21
<i>Akr1b8</i>	-1.08	3.43E-02	1.71	9.21E-04
<i>Akr1c18</i>	-1.32	1.89E-01	10.35	1.95E-97
<i>Akr1d1</i>	1.43	4.13E-05	-1.94	2.20E-08
<i>Akt2</i>	0.07	8.34E-01	-0.62	1.47E-07
<i>Alad</i>	0.59	1.94E-01	-0.73	1.54E-02
<i>Alas1</i>	1.89	1.16E-04	-0.90	1.19E-01
<i>Alas2</i>	0.47	4.58E-01	-2.74	3.36E-09
<i>Aldh18a1</i>	-0.40	6.45E-01	2.97	8.41E-31

<i>Aldh1a1</i>	2.51	4.95E-17	-2.78	6.08E-17
<i>Aldh1a2</i>	0.15	9.02E-01	2.75	1.66E-04
<i>Aldh1a7</i>	2.37	4.96E-16	-1.90	1.09E-08
<i>Aldh1b1</i>	-0.36	6.00E-01	0.96	1.79E-03
<i>Aldh2</i>	0.37	4.34E-01	-1.13	1.02E-06
<i>Aldh3a2</i>	1.58	2.18E-06	-2.27	2.19E-14
<i>Aldh3b1</i>	-1.01	5.23E-05	2.03	1.61E-12
<i>Aldh3b2</i>	-0.42	NA	2.67	4.20E-02
<i>Aldh4a1</i>	0.35	4.49E-01	-1.73	2.59E-20
<i>Aldh5a1</i>	0.82	1.61E-03	-1.39	1.91E-13
<i>Aldh6a1</i>	0.60	2.44E-01	-2.00	7.82E-17
<i>Aldh7a1</i>	0.88	4.81E-03	-1.59	1.57E-11
<i>Aldh9a1</i>	-0.01	9.88E-01	-0.91	1.80E-03
<i>Aldoa</i>	-0.27	5.88E-01	1.25	6.89E-04
<i>Aldoart1</i>	-0.23	6.80E-01	0.87	3.74E-02
<i>Aldob</i>	0.76	3.39E-02	-0.57	1.70E-01
<i>Alg10b</i>	0.21	6.39E-01	-2.04	9.27E-12
<i>Alg12</i>	-0.66	3.72E-02	1.19	7.68E-07
<i>Allc</i>	-2.30	NA	3.19	1.11E-02
<i>Alox12</i>	-1.10	1.64E-03	1.41	1.82E-04
<i>Alox5</i>	-0.23	8.58E-01	6.78	1.53E-30
<i>Amacr</i>	0.48	3.57E-01	-1.84	5.14E-17
<i>Amdhd1</i>	-0.22	7.60E-01	-0.67	4.77E-02
<i>Amt</i>	0.93	9.66E-06	-2.10	2.19E-21
<i>Amy1</i>	0.75	5.61E-02	-1.18	6.45E-05
<i>Aoc2</i>	-0.51	1.35E-01	1.52	5.77E-09
<i>Aox1</i>	0.50	2.33E-01	-0.93	8.20E-03
<i>Aox3</i>	1.39	6.34E-03	-3.80	1.85E-27
<i>Arhgap5</i>	0.66	9.50E-02	-1.53	1.17E-04
<i>Arsb</i>	0.30	1.15E-01	-0.71	1.71E-07
<i>Art2a-ps</i>	-0.62	4.96E-01	2.52	6.42E-03
<i>Asl</i>	0.66	1.74E-01	-1.50	6.13E-11
<i>Asns</i>	-0.47	4.03E-01	3.17	1.26E-11
<i>Aspa</i>	1.80	4.29E-05	-2.79	6.91E-14
<i>Ass1</i>	0.50	4.76E-01	-1.71	5.09E-07
<i>Atp5a1</i>	0.44	4.68E-02	-1.18	1.59E-14
<i>Atp5b</i>	0.37	1.07E-01	-1.11	1.15E-09
<i>Atp5c1</i>	0.39	8.42E-02	-0.68	2.91E-04
<i>Atp5f1</i>	0.32	2.37E-01	-0.66	1.23E-03
<i>Atp6v0a2</i>	0.16	6.24E-01	-0.73	1.24E-02
<i>Atp6v0d2</i>	0.72	3.21E-01	2.19	2.38E-03
<i>Atp6v0e</i>	0.04	9.02E-01	0.71	9.78E-06
<i>Atp6v0e2</i>	-1.30	6.89E-03	0.80	1.44E-01
<i>Atp6v1a</i>	0.13	5.94E-01	-0.82	4.76E-05
<i>Auh</i>	0.64	3.69E-02	-0.93	1.12E-05

<i>Awat2</i>	0.81	8.64E-02	-0.97	2.74E-02
<i>B3galt4</i>	-0.33	5.81E-01	1.38	1.80E-02
<i>B3galt6</i>	-0.48	6.86E-02	1.00	1.26E-05
<i>B4galt2</i>	-1.08	7.71E-02	2.09	1.19E-03
<i>B4galt4</i>	-0.35	2.51E-01	1.18	3.09E-04
<i>B4galt6</i>	-1.19	1.92E-04	4.89	4.64E-108
<i>Baat</i>	1.82	1.44E-08	-2.14	5.77E-10
<i>Bag4</i>	0.77	2.48E-02	-2.26	6.30E-74
<i>Bckdha</i>	0.61	5.64E-02	-1.11	1.06E-04
<i>Bcl10</i>	-0.16	5.36E-01	1.12	1.36E-08
<i>Bcl2</i>	-0.14	8.57E-01	2.35	1.12E-13
<i>Bcl2a1a</i>	0.21	8.45E-01	3.60	1.82E-04
<i>Bcl2a1b</i>	-0.26	7.85E-01	3.40	1.27E-07
<i>Bcl2a1d</i>	-0.42	6.34E-01	3.19	2.33E-05
<i>Bcl2l1</i>	-0.96	1.10E-03	1.67	5.40E-10
<i>Bcmo1</i>	-1.48	2.71E-03	2.68	1.40E-15
<i>Bhmt</i>	2.19	5.52E-08	-1.70	1.31E-04
<i>Bhmt2</i>	0.68	4.45E-02	-1.37	9.21E-06
<i>Blnk</i>	-1.19	1.43E-02	2.29	2.65E-05
<i>Bmp4</i>	0.50	6.03E-01	1.47	9.72E-05
<i>Bmp5</i>	0.31	5.72E-01	-1.61	2.14E-04
<i>Bmp7</i>	-1.06	1.20E-01	3.13	1.54E-14
<i>Bmp8b</i>	-1.18	2.56E-01	5.34	3.89E-13
<i>Bmpr2</i>	0.54	2.11E-01	-1.02	9.65E-03
<i>Bpnt1</i>	0.51	1.09E-02	-1.20	1.46E-10
<i>Braf</i>	0.24	3.83E-01	-0.75	8.44E-04
<i>Btd</i>	0.53	5.11E-02	-0.72	5.90E-03
<i>Btk</i>	-0.12	8.24E-01	0.99	6.56E-03
<i>C1galt1</i>	0.18	5.90E-01	-1.41	1.04E-10
<i>Camkk2</i>	0.77	2.49E-03	-1.36	1.17E-05
<i>Card11</i>	-0.32	6.41E-01	1.96	1.35E-04
<i>Cat</i>	0.98	8.44E-04	-1.84	3.38E-13
<i>Cav1</i>	1.34	NA	1.49	1.94E-02
<i>Cav2</i>	-0.01	9.87E-01	2.39	3.05E-13
<i>Cbr1</i>	0.09	8.95E-01	1.67	5.90E-07
<i>Cbr2</i>	0.05	9.74E-01	2.89	1.12E-02
<i>Cbr3</i>	0.74	1.65E-01	6.13	2.30E-34
<i>Cbs</i>	0.00	9.95E-01	-1.55	8.55E-09
<i>Ccbl1</i>	-1.65	5.49E-06	0.64	6.06E-02
<i>Ccl4</i>	-0.05	9.66E-01	3.08	8.39E-06
<i>Ccna2</i>	0.34	6.67E-01	3.39	1.24E-14
<i>Ccnd1</i>	-0.17	7.91E-01	1.98	3.22E-10
<i>Cd14</i>	-1.53	2.02E-03	5.18	3.01E-35
<i>Cd36</i>	1.32	5.49E-06	1.48	1.26E-06
<i>Cd38</i>	-0.62	5.94E-02	0.99	9.34E-04

<i>Cd40</i>	-2.19	2.88E-13	4.51	2.40E-29
<i>Cdkn2b</i>	-1.79	5.15E-06	7.12	5.46E-73
<i>Cdo1</i>	0.33	4.53E-01	-1.35	3.78E-07
<i>Ces1c</i>	0.58	2.19E-02	-1.45	3.54E-10
<i>Ces1d</i>	1.77	1.94E-04	-3.12	6.02E-24
<i>Ces1e</i>	2.58	2.08E-08	-3.32	6.14E-52
<i>Ch25h</i>	-0.21	8.62E-01	3.99	3.24E-06
<i>Chad</i>	0.09	8.99E-01	-1.05	9.33E-03
<i>Chdh</i>	0.70	7.16E-02	-1.57	2.99E-05
<i>Chka</i>	-0.79	3.80E-01	2.26	7.08E-03
<i>Chpf</i>	-0.66	1.94E-01	2.16	4.54E-10
<i>Chpt1</i>	1.36	6.14E-05	-2.48	1.13E-24
<i>Chsy3</i>	-0.72	5.63E-02	1.02	7.94E-04
<i>Chuk</i>	0.33	3.51E-01	-1.22	2.62E-15
<i>Ckb</i>	-0.25	7.08E-01	1.14	2.09E-02
<i>Ckmt1</i>	-1.85	3.22E-03	1.85	1.91E-02
<i>Cmb1</i>	1.02	2.98E-03	-1.97	3.48E-16
<i>Coasy</i>	0.65	7.57E-03	-1.31	9.49E-11
<i>Col4a1</i>	-0.07	9.47E-01	1.53	7.18E-03
<i>Col4a3</i>	-1.33	1.25E-02	5.63	3.72E-38
<i>Col4a4</i>	-0.90	1.60E-01	4.04	7.26E-13
<i>Col4a5</i>	0.13	9.07E-01	1.96	5.16E-07
<i>Col6a5</i>	0.66	4.80E-01	2.03	5.12E-03
<i>Col6a6</i>	-0.51	6.08E-01	1.42	4.13E-02
<i>Comt</i>	1.04	8.74E-12	-1.82	3.26E-37
<i>Cox15</i>	0.13	6.36E-01	-0.64	3.41E-04
<i>Cox5a</i>	0.30	2.70E-01	-0.64	1.50E-03
<i>Cox6a2</i>	-1.16	2.22E-01	2.80	9.80E-03
<i>Cox6b2</i>	-1.20	6.85E-02	1.58	3.12E-02
<i>Cpox</i>	1.03	1.50E-04	-2.61	6.72E-30
<i>Cps1</i>	0.27	6.39E-01	-3.04	2.09E-33
<i>Cpt1c</i>	-1.72	5.96E-04	2.47	1.75E-05
<i>Cpt2</i>	1.03	6.76E-07	-2.00	3.50E-29
<i>Creb3l1</i>	-0.72	3.01E-01	1.66	1.21E-02
<i>Creb3l2</i>	-0.31	6.25E-01	0.80	4.74E-02
<i>Creb3l3</i>	0.35	5.10E-01	-1.38	1.13E-05
<i>Creb5</i>	-0.81	3.07E-01	3.02	2.52E-03
<i>Crebbp</i>	-0.06	8.53E-01	-0.75	1.20E-03
<i>Crkl</i>	0.08	8.92E-01	-0.70	2.69E-02
<i>Crtc2</i>	0.21	4.66E-01	-0.70	1.36E-04
<i>Cryl1</i>	0.94	1.12E-01	-0.96	3.66E-02
<i>Cs</i>	0.52	5.60E-03	-1.02	4.68E-07
<i>Csad</i>	2.25	7.54E-09	-2.82	9.85E-15
<i>Csf1</i>	0.96	2.64E-02	0.35	2.38E-01
<i>Csgalnact</i>	-0.64	3.25E-01	1.47	1.89E-02

<i>Csl</i>	0.65	3.86E-04	-1.66	4.85E-16
<i>Cth</i>	1.03	6.86E-03	-2.43	1.88E-23
<i>Ctps</i>	0.76	1.85E-01	1.79	5.61E-10
<i>Ctps2</i>	-0.05	9.40E-01	1.29	1.09E-09
<i>Cul1</i>	0.21	1.59E-01	-0.62	3.95E-05
<i>Cxcl1</i>	-0.99	1.68E-03	2.47	3.87E-10
<i>Cxcl12</i>	1.14	1.86E-03	-2.50	1.23E-11
<i>Cxcl2</i>	-1.22	9.13E-02	3.22	1.17E-04
<i>Cyc1</i>	0.34	1.70E-01	-0.90	1.09E-05
<i>Cyp11b2</i>	-1.49	NA	2.78	3.21E-02
<i>Cyp17a1</i>	-2.13	3.02E-03	2.84	1.01E-03
<i>Cyp1a1</i>	-1.48	3.21E-02	1.16	8.84E-02
<i>Cyp1a2</i>	1.27	4.75E-02	-3.35	1.02E-17
<i>Cyp1b1</i>	0.18	8.58E-01	1.53	2.76E-02
<i>Cyp26a1</i>	0.31	7.38E-01	-1.25	3.72E-02
<i>Cyp27a1</i>	1.47	1.07E-05	-2.88	4.48E-35
<i>Cyp2a4</i>	-0.78	5.16E-01	7.76	8.64E-21
<i>Cyp2b10</i>	1.83	NA	-4.64	4.05E-13
<i>Cyp2b13</i>	-1.12	NA	5.63	3.94E-07
<i>Cyp2b9</i>	-0.73	5.61E-01	3.69	1.55E-04
<i>Cyp2c29</i>	2.26	6.95E-05	-4.80	NA
<i>Cyp2c37</i>	2.62	NA	-3.77	7.49E-26
<i>Cyp2c38</i>	2.20	4.68E-05	-2.29	6.87E-06
<i>Cyp2c44</i>	1.57	8.82E-03	-2.94	1.73E-07
<i>Cyp2c50</i>	2.76	7.53E-07	-4.56	6.09E-29
<i>Cyp2c54</i>	2.88	6.32E-06	-4.67	3.01E-20
<i>Cyp2c55</i>	1.03	1.71E-01	-2.90	2.21E-12
<i>Cyp2d10</i>	0.18	7.56E-01	-0.83	3.25E-03
<i>Cyp2d12</i>	2.58	3.31E-06	-1.23	1.37E-01
<i>Cyp2d22</i>	0.00	9.95E-01	-0.99	2.77E-06
<i>Cyp2d40</i>	0.93	9.77E-02	-2.45	6.74E-22
<i>Cyp2d9</i>	-0.45	4.32E-01	-2.67	4.28E-21
<i>Cyp2e1</i>	1.92	2.91E-03	-3.88	3.24E-15
<i>Cyp2j5</i>	2.00	1.96E-04	-3.35	5.57E-06
<i>Cyp2j9</i>	1.69	2.60E-03	-2.27	1.79E-04
<i>Cyp2r1</i>	0.41	3.27E-01	-1.05	8.72E-04
<i>Cyp2u1</i>	-0.60	4.70E-01	-2.45	2.88E-10
<i>Cyp39a1</i>	-1.11	2.86E-02	1.03	2.64E-03
<i>Cyp3a11</i>	1.37	3.15E-02	-2.65	3.48E-10
<i>Cyp3a13</i>	0.10	8.64E-01	-0.75	5.05E-03
<i>Cyp3a16</i>	0.36	NA	3.48	4.81E-03
<i>Cyp3a25</i>	1.25	2.87E-02	-2.08	9.84E-06
<i>Cyp3a41a</i>	-0.13	NA	2.66	4.28E-02
<i>Cyp46a1</i>	0.88	3.58E-01	-1.95	3.54E-04
<i>Cyp4a10</i>	2.60	NA	-4.53	1.82E-09

<i>Cyp4a12a</i>	3.54	1.05E-08	-3.25	7.27E-05
<i>Cyp4a12b</i>	1.70	3.26E-02	-3.76	3.83E-05
<i>Cyp4a32</i>	1.02	1.88E-01	-4.18	2.29E-24
<i>Cyp4f13</i>	0.35	2.75E-01	-0.96	6.14E-08
<i>Cyp4f14</i>	1.53	2.18E-03	-3.23	4.98E-12
<i>Cyp4f18</i>	-0.24	8.36E-01	2.18	3.76E-04
<i>Cyp7a1</i>	2.79	1.31E-13	-3.26	1.19E-09
<i>Cyp7b1</i>	1.67	1.21E-03	-5.10	4.15E-28
<i>Cyp8b1</i>	1.49	2.51E-03	-5.41	NA
<i>Dbt</i>	-0.17	7.63E-01	-1.10	9.89E-07
<i>Dct</i>	-0.18	9.00E-01	-3.59	8.20E-08
<i>Dctd</i>	-1.21	1.22E-01	3.42	1.92E-05
<i>Dcxr</i>	0.52	3.31E-01	-1.05	5.20E-04
<i>Ddc</i>	1.40	1.78E-03	-2.33	4.46E-08
<i>Degs2</i>	-0.02	9.83E-01	1.94	9.78E-04
<i>Dgat2</i>	-0.17	7.59E-01	-0.77	7.87E-03
<i>Dgke</i>	-0.09	8.45E-01	1.02	8.75E-04
<i>Dgkq</i>	0.47	8.84E-05	-0.61	8.60E-05
<i>Dgkz</i>	-0.66	9.36E-03	1.37	2.33E-07
<i>Dhrs3</i>	0.88	1.40E-03	-1.00	5.25E-11
<i>Dhrs4</i>	1.17	1.73E-05	-1.77	4.72E-10
<i>Dhrs9</i>	-0.43	6.49E-01	1.67	1.50E-03
<i>Diap1</i>	0.12	7.27E-01	-1.22	2.49E-07
<i>Dlat</i>	0.86	2.62E-06	-1.52	6.75E-15
<i>Dld</i>	0.59	3.21E-03	-1.10	5.35E-13
<i>Dlst</i>	0.18	7.41E-01	-0.93	6.57E-09
<i>Dmgdh</i>	1.76	7.34E-07	-2.69	2.10E-35
<i>Dock1</i>	-0.07	8.78E-01	-0.67	1.06E-02
<i>Dpm2</i>	-0.31	2.06E-01	0.78	1.12E-03
<i>Dpyd</i>	1.17	4.75E-03	-2.91	1.25E-48
<i>Dpys</i>	1.36	4.29E-04	-2.97	1.41E-20
<i>Ebp</i>	0.36	3.99E-01	-1.04	2.63E-04
<i>Echs1</i>	0.38	1.56E-01	-1.08	9.81E-07
<i>Eci1</i>	1.18	2.75E-04	-1.71	1.54E-12
<i>Eci2</i>	1.08	1.34E-04	-1.66	5.45E-11
<i>Edn1</i>	-0.95	3.13E-02	1.38	6.44E-03
<i>Eef2k</i>	0.57	1.85E-01	-1.12	2.56E-03
<i>Egfr</i>	0.54	2.45E-01	-1.64	6.19E-08
<i>Ehhadh</i>	1.62	1.75E-04	-2.70	3.13E-14
<i>Eif4ebp1</i>	-0.49	8.50E-04	0.96	2.54E-06
<i>Enoph1</i>	0.18	7.22E-01	0.88	7.23E-06
<i>Enpp1</i>	-1.14	4.22E-04	0.31	2.51E-01
<i>Enpp3</i>	0.10	8.80E-01	-1.64	5.14E-08
<i>Ephx1</i>	0.87	3.89E-05	-0.59	1.94E-02
<i>Ephx2</i>	1.58	1.80E-05	-2.82	2.98E-116

<i>Ept1</i>	0.45	2.02E-01	-1.84	5.16E-13
<i>Erc1</i>	0.31	1.93E-01	-1.20	2.16E-06
<i>Etnk2</i>	0.00	1.00E+00	-1.47	3.12E-07
<i>Extl1</i>	-0.15	9.03E-01	-1.31	1.95E-02
<i>Fah</i>	0.29	5.21E-01	-0.92	3.12E-04
<i>Fahd1</i>	0.81	4.45E-03	-1.25	1.24E-06
<i>Fbp1</i>	0.49	7.77E-02	-1.63	1.40E-17
<i>Fech</i>	0.20	6.49E-01	-0.75	7.49E-03
<i>Fh1</i>	0.26	4.58E-01	-0.78	1.33E-03
<i>Figf</i>	-0.40	7.74E-02	1.00	1.99E-05
<i>Flad1</i>	0.10	7.59E-01	-0.77	4.66E-05
<i>Flna</i>	0.00	9.98E-01	1.29	2.42E-03
<i>Flncl</i>	-0.05	9.74E-01	2.32	3.67E-03
<i>Flt4</i>	-0.96	1.64E-03	0.84	7.21E-03
<i>Fn1</i>	-0.81	1.89E-04	0.24	3.84E-01
<i>Fos</i>	-1.11	2.19E-02	-0.38	7.17E-01
<i>Foxo1</i>	-0.21	4.96E-01	-0.67	1.75E-03
<i>Foxo3</i>	0.12	8.66E-01	-2.12	4.41E-08
<i>Fpgs</i>	0.44	1.79E-02	-1.71	1.64E-20
<i>Fst</i>	-3.10	1.67E-07	2.72	5.62E-10
<i>Fut1</i>	0.52	6.69E-01	2.21	2.04E-02
<i>Fut4</i>	-0.04	9.69E-01	1.62	2.83E-02
<i>Fut7</i>	-2.00	6.01E-06	4.09	4.02E-10
<i>Fyn</i>	-0.37	3.53E-01	0.86	2.20E-02
<i>G6pc</i>	1.77	1.02E-02	-3.61	1.15E-06
<i>G6pd2</i>	-0.59	3.23E-01	2.13	1.58E-06
<i>G6pdx</i>	-0.85	8.63E-02	2.54	2.47E-08
<i>Gadd45b</i>	0.95	8.76E-02	1.08	2.49E-02
<i>Gale</i>	-0.54	2.84E-01	1.00	1.05E-03
<i>Galk1</i>	0.12	6.93E-01	0.63	6.57E-03
<i>Galm</i>	0.79	6.09E-03	-1.56	2.12E-09
<i>Galns</i>	0.03	9.50E-01	0.85	9.01E-07
<i>Galnt1</i>	0.21	4.13E-01	-0.74	3.60E-03
<i>Galnt10</i>	-0.90	5.61E-03	1.64	1.24E-05
<i>Galnt12</i>	-0.37	6.33E-01	2.95	3.54E-06
<i>Galnt3</i>	-0.41	5.65E-01	2.37	1.91E-05
<i>Galnt4</i>	-0.02	9.57E-01	-0.84	7.41E-07
<i>Galnt6</i>	-3.17	1.06E-07	5.02	6.19E-10
<i>Galntl2</i>	-0.67	2.22E-01	1.43	6.18E-03
<i>Galntl4</i>	-0.63	2.96E-02	1.65	5.97E-07
<i>Gapdh</i>	-0.14	8.81E-01	1.21	2.39E-02
<i>Gapdhs</i>	-0.15	8.20E-01	-1.03	9.70E-03
<i>Gatc</i>	0.44	6.71E-03	-0.82	1.14E-10
<i>Gba2</i>	0.06	9.01E-01	-0.66	5.62E-03
<i>Gcdh</i>	0.94	2.49E-02	-1.89	2.61E-20

<i>Gch1</i>	0.29	4.74E-01	-0.99	6.00E-04
<i>Gck</i>	1.49	7.62E-04	-0.35	5.46E-01
<i>Gclm</i>	0.67	2.94E-03	-0.62	1.45E-03
<i>Gcnt1</i>	0.26	7.49E-01	1.55	1.67E-04
<i>Gcnt2</i>	-0.69	2.44E-02	0.79	4.15E-03
<i>Gfpt1</i>	-0.13	7.49E-01	1.01	2.43E-04
<i>Ggt6</i>	1.04	4.01E-06	-1.51	1.73E-11
<i>Glb1</i>	-0.64	4.05E-02	0.36	2.57E-01
<i>Gldc</i>	-0.03	9.57E-01	-1.09	1.05E-03
<i>Gls</i>	-0.53	3.37E-01	1.90	2.05E-06
<i>Gls2</i>	-0.09	9.31E-01	-1.18	2.06E-04
<i>Glt28d2</i>	0.07	9.14E-01	-0.81	2.91E-02
<i>Glul</i>	1.46	7.98E-03	-3.01	1.70E-11
<i>Glyctk</i>	0.12	8.03E-01	-1.11	1.06E-05
<i>Gm5506</i>	1.50	3.50E-03	-0.87	1.08E-01
<i>Gmppb</i>	-0.29	5.12E-01	1.05	4.17E-04
<i>Gne</i>	0.07	9.25E-01	-1.01	1.53E-02
<i>Gnpda1</i>	0.37	3.82E-01	-1.19	2.37E-04
<i>Gns</i>	0.01	9.83E-01	-0.61	2.17E-07
<i>Got1</i>	-0.44	5.35E-01	-1.43	2.88E-05
<i>Got2</i>	0.45	8.17E-02	-0.73	2.35E-03
<i>Gpam</i>	-0.43	3.28E-01	-1.03	9.67E-06
<i>Gpat2</i>	0.21	8.31E-01	-1.34	4.22E-02
<i>Gpi1</i>	-0.56	1.80E-01	1.04	1.14E-02
<i>Grif1</i>	0.06	8.20E-01	-1.19	1.51E-10
<i>Gsk3b</i>	0.32	7.74E-02	-0.64	1.18E-04
<i>Gss</i>	-0.13	8.11E-01	1.31	5.49E-06
<i>Gsta1</i>	0.24	8.26E-01	5.13	7.81E-11
<i>Gsta2</i>	1.47	1.05E-03	0.52	2.98E-01
<i>Gsta3</i>	0.93	1.63E-03	-1.95	2.13E-13
<i>Gsta4</i>	-0.34	4.24E-01	1.34	2.74E-06
<i>Gstk1</i>	1.04	2.79E-03	-1.62	4.09E-09
<i>Gstm1</i>	0.41	2.65E-01	1.48	8.08E-06
<i>Gstm3</i>	1.07	8.38E-02	1.97	2.47E-04
<i>Gstm5</i>	-0.60	2.39E-01	1.42	6.12E-09
<i>Gstm6</i>	0.27	5.10E-01	-0.69	1.48E-03
<i>Gsto1</i>	-0.16	8.04E-01	-0.86	2.07E-03
<i>Gstp1</i>	0.33	2.94E-01	-1.34	5.94E-10
<i>Gstp2</i>	-1.37	9.98E-02	4.85	1.40E-08
<i>Gstz1</i>	0.11	8.83E-01	-0.82	4.86E-03
<i>Gulo</i>	0.17	8.41E-01	-1.63	2.09E-06
<i>Gyk</i>	0.81	9.57E-03	-1.26	2.22E-04
<i>H19</i>	-3.04	1.14E-04	7.46	1.45E-21
<i>H2-Ke6</i>	0.56	1.58E-02	-0.63	1.58E-03
<i>Haao</i>	0.80	8.91E-02	-1.51	7.09E-06

<i>Hadh</i>	0.92	2.26E-05	-1.34	4.96E-09
<i>Hadha</i>	0.49	2.75E-02	-1.56	1.65E-14
<i>Hadhb</i>	0.44	4.93E-02	-0.68	1.93E-04
<i>Hal</i>	0.19	8.65E-01	-1.43	1.72E-05
<i>Hao1</i>	-0.34	6.35E-01	-1.12	3.34E-05
<i>Hao2</i>	-0.11	9.33E-01	3.80	3.95E-07
<i>Hexa</i>	-0.81	8.20E-03	1.30	8.76E-11
<i>Hexb</i>	0.15	7.18E-01	0.92	1.13E-05
<i>Hgd</i>	0.73	8.64E-02	-1.86	1.55E-14
<i>Hgf</i>	0.14	8.41E-01	-1.00	1.42E-02
<i>Hibadh</i>	1.16	2.02E-03	-1.82	4.38E-14
<i>Hibch</i>	0.42	2.27E-01	-0.99	2.85E-04
<i>Hk2</i>	-0.73	2.21E-01	2.51	1.86E-06
<i>Hk3</i>	-0.83	1.46E-01	1.21	4.57E-02
<i>Hkdc1</i>	-1.63	1.37E-02	2.24	9.97E-04
<i>Hmbs</i>	0.25	2.63E-01	-0.67	3.42E-04
<i>Hmgcl</i>	0.57	8.64E-02	-0.95	4.86E-04
<i>Hmgcr</i>	-0.59	2.78E-01	0.87	2.32E-02
<i>Hmgcs2</i>	1.15	5.05E-05	-2.02	3.97E-13
<i>Hoga1</i>	0.27	6.33E-01	-0.81	1.02E-02
<i>Hpd</i>	1.30	9.58E-02	-3.33	4.25E-10
<i>Hpgds</i>	0.07	9.42E-01	2.17	1.18E-06
<i>Hsd17b1</i>	-1.08	3.10E-02	1.65	6.40E-03
<i>Hsd17b10</i>	0.47	1.85E-01	-0.71	8.57E-03
<i>Hsd17b4</i>	1.08	3.36E-05	-2.02	1.18E-38
<i>Hsd17b7</i>	-0.05	9.33E-01	-0.95	5.41E-04
<i>Hsd3b1</i>	0.67	5.90E-01	2.92	2.29E-02
<i>Hsd3b2</i>	0.83	1.35E-01	-2.93	1.13E-34
<i>Hsd3b7</i>	0.82	2.11E-02	-2.66	2.60E-62
<i>Hyal1</i>	1.23	6.54E-04	-2.75	1.77E-14
<i>Hyal3</i>	0.60	2.40E-01	-1.31	1.94E-03
<i>Icam1</i>	-0.18	8.20E-01	1.94	1.43E-09
<i>Id1</i>	-0.87	6.26E-02	3.27	9.98E-11
<i>Idh1</i>	0.23	5.35E-01	-1.05	5.38E-06
<i>Idh2</i>	0.87	6.89E-03	-0.58	3.13E-02
<i>Idh3a</i>	0.56	1.85E-04	-0.91	2.74E-10
<i>Idh3b</i>	0.32	2.75E-01	-0.80	1.57E-03
<i>Idh3g</i>	0.50	2.18E-02	-0.70	6.99E-04
<i>Idi1</i>	0.42	5.53E-01	-1.55	5.83E-04
<i>Ido2</i>	0.42	5.01E-01	-1.90	9.58E-10
<i>Igf1</i>	1.45	2.08E-06	-2.42	5.87E-17
<i>Ikbkg</i>	0.81	4.90E-05	-0.69	1.63E-03
<i>Il1b</i>	0.68	6.53E-02	1.08	6.78E-03
<i>Impad1</i>	0.30	2.12E-01	-1.09	3.75E-10
<i>Impdh1</i>	-0.79	1.11E-01	1.95	2.25E-06

<i>Inhbb</i>	-2.10	2.24E-04	4.44	5.34E-14
<i>Inhbc</i>	0.69	6.74E-03	-1.90	1.68E-10
<i>Inhbe</i>	1.95	3.66E-08	-1.65	2.02E-10
<i>Inmt</i>	3.01	5.68E-11	-2.84	7.26E-13
<i>Inpp5b</i>	0.16	4.96E-01	-0.62	2.78E-04
<i>Inpp5j</i>	-1.24	1.13E-01	4.05	1.92E-05
<i>lpmk</i>	-0.22	6.15E-01	-0.84	1.08E-05
<i>Irs1</i>	0.23	5.79E-01	-0.79	1.39E-02
<i>Irs2</i>	0.11	8.96E-01	-2.38	2.32E-05
<i>Isyna1</i>	-0.54	1.61E-01	3.02	2.33E-24
<i>Itga11</i>	-1.12	4.89E-02	2.94	1.41E-04
<i>Itga2</i>	-1.32	8.18E-04	4.44	3.33E-09
<i>Itga2b</i>	-0.77	4.29E-02	0.09	7.94E-01
<i>Itga3</i>	-0.86	7.99E-02	2.69	1.36E-20
<i>Itga6</i>	-0.41	5.29E-01	2.32	2.64E-09
<i>Itgav</i>	-0.41	1.42E-01	0.81	4.12E-04
<i>Itgb3</i>	-1.24	3.02E-02	0.86	NA
<i>Itgb4</i>	0.67	NA	1.53	1.38E-02
<i>Itgb7</i>	-0.01	9.85E-01	1.53	2.19E-03
<i>Itpk1</i>	0.32	2.07E-01	-1.44	8.64E-12
<i>Ivd</i>	0.58	2.00E-01	-1.81	1.48E-11
<i>Jun</i>	0.63	8.61E-02	-1.58	2.70E-03
<i>Kdsr</i>	0.65	1.88E-03	-0.85	2.52E-10
<i>Khk</i>	0.58	7.36E-02	-0.79	8.47E-03
<i>Kmo</i>	0.20	7.97E-01	-1.22	1.86E-03
<i>Kynu</i>	0.83	3.45E-05	-1.82	4.96E-24
<i>Lama1</i>	0.49	3.27E-01	-1.38	2.65E-04
<i>Lama3</i>	0.22	7.54E-01	-2.72	1.36E-13
<i>Lama5</i>	-0.71	3.37E-02	4.04	7.28E-70
<i>Lamb2</i>	0.00	9.98E-01	1.56	3.60E-05
<i>Lamb3</i>	0.26	7.44E-01	-1.15	1.54E-02
<i>Lap3</i>	0.49	1.07E-01	-1.35	1.23E-10
<i>Lass5</i>	0.05	9.46E-01	0.97	1.29E-02
<i>Lass6</i>	-1.00	NA	1.68	7.28E-03
<i>Lat</i>	-0.26	7.88E-01	1.95	5.95E-03
<i>Lclat1</i>	0.05	9.43E-01	-0.79	3.51E-03
<i>Lepr</i>	-2.54	7.45E-09	2.36	1.61E-05
<i>Lias</i>	0.20	4.36E-01	-0.78	3.15E-07
<i>Lif</i>	-1.13	1.34E-02	6.40	7.59E-28
<i>Lipc</i>	0.97	4.41E-02	-2.78	5.05E-20
<i>Lipe</i>	-0.14	8.42E-01	-0.77	1.68E-03
<i>Lipg</i>	1.89	3.87E-03	-3.75	2.39E-25
<i>Lipt1</i>	0.60	1.31E-03	-0.71	1.16E-04
<i>Lipt2</i>	0.21	5.61E-01	0.70	8.02E-03
<i>Lpcat1</i>	-0.98	3.14E-02	0.70	2.25E-01

<i>Lpcat2</i>	0.27	6.70E-01	1.78	2.28E-07
<i>Lpcat4</i>	-0.21	7.90E-01	1.30	1.13E-02
<i>Lpin2</i>	0.31	5.47E-01	-1.04	3.29E-03
<i>Lpin3</i>	-0.27	5.75E-01	1.37	1.06E-05
<i>Lrdd</i>	-0.42	4.65E-02	0.76	3.03E-03
<i>Lss</i>	-0.53	2.89E-01	0.97	4.79E-04
<i>Lta</i>	0.08	9.50E-01	2.56	1.19E-02
<i>Ltb</i>	-1.40	8.82E-03	5.27	2.31E-43
<i>Ly96</i>	-0.67	3.41E-02	1.32	1.01E-04
<i>Man1a</i>	0.50	1.05E-01	-1.42	4.28E-09
<i>Man1c1</i>	-0.50	2.55E-01	1.09	1.11E-02
<i>Maob</i>	0.59	2.04E-01	-1.34	4.78E-04
<i>Map3k14</i>	0.09	8.91E-01	1.50	1.16E-06
<i>Mapk1</i>	0.13	4.62E-01	-0.68	3.00E-05
<i>Mapk3</i>	-0.36	1.20E-01	0.92	4.42E-06
<i>Mat1a</i>	1.00	2.29E-02	-1.97	1.42E-06
<i>Mboat1</i>	0.04	9.74E-01	1.50	1.09E-02
<i>Mccc1</i>	0.38	2.60E-01	-1.34	6.18E-11
<i>Mccc2</i>	0.79	3.70E-03	-1.52	6.46E-20
<i>Mcee</i>	0.86	2.20E-03	-0.66	3.59E-03
<i>Mdh1</i>	0.88	9.80E-03	-1.58	6.47E-12
<i>Me1</i>	1.00	5.80E-05	-1.50	9.47E-09
<i>Met</i>	0.29	1.78E-01	-1.24	9.27E-11
<i>Mgam</i>	0.65	1.47E-02	-1.18	3.27E-09
<i>Mgat4a</i>	0.12	8.80E-01	1.52	5.98E-04
<i>Mgat5</i>	-0.02	9.84E-01	-1.48	4.64E-04
<i>Mgl1</i>	1.67	2.12E-14	-2.36	4.98E-23
<i>Mgst1</i>	1.58	7.74E-06	-1.82	1.08E-16
<i>Mgst3</i>	0.83	8.38E-03	1.03	2.13E-04
<i>Mlycd</i>	0.36	3.64E-01	-1.03	1.84E-04
<i>Mmab</i>	-0.33	3.41E-01	-0.64	1.99E-02
<i>Mmp14</i>	-0.74	4.45E-02	1.04	3.78E-03
<i>Mocs1</i>	-0.16	8.00E-01	-0.92	1.95E-04
<i>Mpst</i>	0.16	8.12E-01	-0.74	1.03E-02
<i>Mtap</i>	-0.12	6.42E-01	0.70	9.19E-05
<i>Mthfd1</i>	0.29	5.96E-01	-1.43	2.52E-13
<i>Mthfd1l</i>	-1.52	3.69E-04	4.16	3.96E-20
<i>Mthfd2</i>	0.55	3.96E-01	1.06	8.21E-04
<i>Mthfd2l</i>	-0.25	4.67E-01	1.66	1.46E-08
<i>Mtmr1</i>	0.23	3.21E-01	-0.65	2.13E-03
<i>Mtmr3</i>	0.03	9.07E-01	-0.75	1.56E-06
<i>Mtmr4</i>	0.43	2.59E-03	-1.16	8.72E-11
<i>Mtr</i>	0.24	5.77E-01	-0.78	1.33E-02
<i>Mut</i>	0.64	9.09E-02	-1.89	2.00E-09
<i>Mvd</i>	-0.22	6.08E-01	0.93	1.10E-02

<i>Myl12a</i>	0.30	6.29E-01	1.17	2.85E-13
<i>Myl12b</i>	0.24	5.64E-01	1.20	7.41E-07
<i>Myl9</i>	-0.07	9.23E-01	0.73	3.41E-02
<i>Mylk</i>	0.26	3.65E-01	-0.77	8.01E-09
<i>Mylk3</i>	0.29	NA	-1.98	1.21E-02
<i>Nadk</i>	0.34	1.35E-01	-0.61	5.00E-04
<i>Nagk</i>	-0.47	4.98E-02	1.19	5.55E-08
<i>Nampt</i>	0.90	2.40E-02	0.04	8.76E-01
<i>Nans</i>	-0.72	1.94E-04	1.45	1.04E-12
<i>Naprt1</i>	0.54	6.40E-02	-0.67	1.93E-02
<i>Nat1</i>	2.27	5.14E-04	-3.26	2.81E-06
<i>Nat2</i>	0.55	8.06E-02	-1.00	3.13E-07
<i>Ndst1</i>	0.03	9.44E-01	-2.17	2.20E-18
<i>Ndst2</i>	0.13	6.84E-01	-0.67	1.40E-04
<i>Ndufa10</i>	0.28	2.52E-01	-0.65	1.66E-03
<i>Ndufa9</i>	0.30	3.23E-01	-0.70	2.50E-04
<i>Ndufb10</i>	0.26	4.56E-01	-0.66	3.12E-03
<i>Ndufs1</i>	0.40	7.07E-02	-1.41	6.43E-23
<i>Ndufs2</i>	0.12	6.94E-01	-0.64	1.62E-05
<i>Ndufv1</i>	0.42	8.19E-02	-1.10	4.16E-11
<i>Nfkb2</i>	-0.07	9.06E-01	1.56	8.86E-25
<i>Nfs1</i>	0.46	1.25E-01	-0.86	3.05E-04
<i>Nme1</i>	-0.48	1.05E-01	0.96	7.30E-04
<i>Nme2</i>	-0.37	2.59E-01	0.86	3.79E-03
<i>Nme4</i>	-0.12	8.08E-01	0.85	1.52E-02
<i>Nme5</i>	0.19	9.00E-01	3.22	3.13E-03
<i>Nme6</i>	-0.90	2.21E-03	1.21	1.15E-05
<i>Nmnat1</i>	0.42	1.54E-01	-0.64	3.60E-03
<i>Nmnat3</i>	0.35	3.35E-01	-0.81	9.31E-04
<i>Nnmt</i>	1.69	1.01E-02	-2.75	1.03E-20
<i>Nnt</i>	-0.11	8.26E-01	-1.21	4.39E-03
<i>Nodal</i>	-0.62	4.73E-01	2.12	1.33E-05
<i>Nos2</i>	-0.87	3.39E-01	4.98	7.53E-07
<i>Nos3</i>	-0.34	NA	1.13	2.21E-02
<i>Nt5c</i>	0.04	8.57E-01	0.97	1.37E-13
<i>Nt5c3l</i>	-1.01	6.81E-03	1.57	9.86E-16
<i>Nt5e</i>	-0.49	6.55E-01	1.08	1.92E-02
<i>Nudt12</i>	0.69	5.72E-02	-1.99	2.73E-08
<i>Oat</i>	2.18	7.18E-04	-3.53	1.55E-13
<i>Ogdh</i>	0.28	1.80E-01	-1.05	1.22E-08
<i>Ogdhl</i>	-1.50	4.84E-02	1.67	6.39E-02
<i>Otc</i>	0.75	3.04E-01	-2.03	1.77E-06
<i>Oxsm</i>	0.72	2.47E-02	-1.50	2.39E-07
<i>P4ha1</i>	0.08	9.42E-01	1.31	1.03E-02
<i>Pafah1b3</i>	-1.09	1.08E-02	2.27	1.14E-13

<i>Pafah2</i>	0.02	9.71E-01	-0.94	1.26E-04
<i>Pah</i>	1.00	1.11E-01	-2.60	7.17E-09
<i>Paics</i>	0.57	2.26E-02	-1.54	7.70E-22
<i>Pak1</i>	-0.96	1.39E-03	3.54	7.53E-70
<i>Pak3</i>	0.70	NA	3.24	6.22E-06
<i>Pak6</i>	2.15	3.08E-03	3.33	1.76E-07
<i>Pank1</i>	1.03	5.26E-02	-2.30	3.06E-09
<i>Pank3</i>	0.26	4.60E-01	-1.09	1.57E-04
<i>Papss2</i>	0.31	6.78E-01	-1.25	3.29E-05
<i>Parp1</i>	0.41	7.47E-02	-0.73	1.35E-05
<i>Parva</i>	0.78	1.51E-04	-1.06	3.37E-08
<i>Parvg</i>	-0.45	3.95E-01	2.28	8.69E-08
<i>Pcca</i>	0.96	1.71E-02	-1.89	4.26E-09
<i>Pccb</i>	0.56	1.54E-01	-1.73	4.11E-08
<i>Pck1</i>	0.41	7.51E-01	-2.08	2.77E-04
<i>Pck2</i>	-0.20	7.79E-01	2.14	2.35E-11
<i>Pcx</i>	0.51	1.55E-01	-0.95	7.25E-03
<i>Pcyt1a</i>	0.62	9.66E-06	-1.42	6.99E-27
<i>Pcyt2</i>	0.53	4.24E-02	-0.89	1.15E-04
<i>Pdgfa</i>	0.05	9.43E-01	1.43	3.78E-07
<i>Pdgfb</i>	0.38	7.12E-01	3.09	7.49E-10
<i>Pdha1</i>	0.31	4.66E-01	-1.22	1.78E-04
<i>Pdhb</i>	0.73	1.96E-04	-0.77	1.01E-03
<i>Pdhx</i>	0.33	4.09E-01	-0.89	1.00E-03
<i>Pdpk1</i>	-0.10	7.29E-01	-0.86	2.45E-07
<i>Pdxk</i>	0.69	8.26E-02	-1.89	7.01E-09
<i>Pdxp</i>	-0.45	5.74E-01	1.53	2.69E-02
<i>Pemt</i>	0.85	8.82E-03	-1.58	5.26E-07
<i>Pet112l</i>	0.78	7.56E-03	-1.36	1.07E-07
<i>Pfkfb3</i>	-0.28	6.80E-01	1.18	4.23E-02
<i>Pfkfb4</i>	-0.70	1.50E-02	2.74	3.53E-17
<i>Pfkm</i>	-0.03	9.46E-01	-0.82	3.15E-08
<i>Pfkp</i>	-2.45	2.11E-08	3.30	5.43E-10
<i>Pgap1</i>	0.39	2.50E-01	-1.07	2.27E-05
<i>Pgd</i>	-0.07	8.57E-01	1.67	3.00E-16
<i>Pgm1</i>	-0.46	1.93E-01	1.85	6.63E-13
<i>Pgm3</i>	-0.66	8.96E-02	1.12	2.31E-03
<i>Pgs1</i>	-0.08	7.76E-01	0.72	2.19E-03
<i>Phgdh</i>	-0.53	6.46E-01	5.01	7.51E-15
<i>Phospho1</i>	1.09	2.98E-02	-2.26	1.39E-07
<i>Pi4ka</i>	0.41	3.03E-02	-1.08	1.16E-06
<i>Pi4kb</i>	0.09	6.45E-01	-0.79	8.98E-08
<i>Pias4</i>	-0.10	6.02E-01	-0.66	6.31E-06
<i>Piga</i>	-0.55	1.92E-01	1.04	3.75E-06
<i>Pigp</i>	-0.07	8.95E-01	0.79	4.86E-03

<i>Pigq</i>	0.29	3.21E-02	-0.88	1.55E-07
<i>Pigy</i>	0.66	1.51E-02	-1.29	1.60E-10
<i>Pik3c2b</i>	-0.68	5.67E-03	0.50	9.04E-02
<i>Pik3c3</i>	0.24	2.46E-01	-1.01	6.91E-10
<i>Pik3cb</i>	0.54	8.66E-02	-0.95	3.42E-05
<i>Pik3cd</i>	-0.15	7.32E-01	1.23	3.18E-05
<i>Pik3cg</i>	0.33	5.59E-01	1.22	8.80E-04
<i>Pik3r1</i>	0.21	1.96E-01	-1.21	3.34E-07
<i>Pik3r3</i>	-0.17	6.80E-01	1.35	1.52E-05
<i>Pik3r5</i>	-0.06	9.44E-01	1.67	1.06E-03
<i>Pip5k1a</i>	-0.06	8.88E-01	-0.64	8.62E-03
<i>Pipox</i>	0.51	5.56E-02	-1.60	1.28E-12
<i>Pklr</i>	0.71	2.60E-02	-0.68	4.38E-02
<i>Pkm2</i>	-1.46	NA	2.48	2.66E-03
<i>Pla2g16</i>	-0.34	5.12E-01	1.00	4.80E-03
<i>Pla2g2d</i>	-0.18	9.16E-01	2.68	3.39E-02
<i>Pla2g2e</i>	-0.08	9.61E-01	5.97	2.19E-10
<i>Pla2g4a</i>	-0.19	7.18E-01	1.02	1.40E-02
<i>Pla2g4b</i>	-0.14	7.49E-01	1.32	1.22E-04
<i>Pla2g4c</i>	0.69	4.02E-01	2.71	5.58E-03
<i>Pla2g4f</i>	-0.31	8.00E-01	3.00	8.90E-03
<i>Pla2g7</i>	-0.72	1.28E-01	3.26	3.12E-16
<i>Plau</i>	0.56	NA	2.20	3.35E-03
<i>Plcb2</i>	0.17	8.26E-01	1.21	2.45E-03
<i>Plcd3</i>	-0.98	1.08E-01	1.48	1.46E-02
<i>Plcg1</i>	0.14	7.42E-01	-1.09	3.46E-04
<i>Plcg2</i>	0.15	7.98E-01	1.12	7.36E-03
<i>Plch1</i>	-0.98	8.02E-02	4.73	2.33E-11
<i>Pld1</i>	-0.83	1.11E-03	1.41	7.14E-16
<i>Pld3</i>	-0.72	2.20E-03	0.94	1.20E-07
<i>Pld4</i>	0.21	6.66E-01	1.20	1.01E-06
<i>Pmm1</i>	-0.48	5.51E-01	1.34	4.51E-02
<i>Pmvk</i>	-0.05	9.12E-01	-0.70	3.16E-04
<i>Pnpla3</i>	-0.53	5.16E-01	5.10	2.88E-30
<i>Pnpo</i>	0.54	1.44E-01	-0.93	2.97E-04
<i>Pola2</i>	0.37	2.66E-01	-0.84	2.62E-03
<i>Pold1</i>	-0.18	6.62E-01	0.97	7.01E-04
<i>Pold4</i>	-1.57	1.12E-06	3.24	7.17E-35
<i>Pole2</i>	-0.61	2.17E-01	1.78	1.67E-03
<i>Polg2</i>	0.45	2.78E-01	-1.19	6.31E-10
<i>Polr1e</i>	0.19	5.08E-01	0.72	2.43E-03
<i>Polr2b</i>	0.20	4.08E-01	-1.23	7.51E-09
<i>Polr2d</i>	-0.06	8.49E-01	0.85	2.01E-05
<i>Polr2e</i>	-0.32	2.72E-01	0.91	1.51E-03
<i>Polr2g</i>	-0.10	7.42E-01	0.61	1.05E-03

<i>Polr2h</i>	-0.32	1.07E-01	1.00	1.01E-04
<i>Polr3d</i>	-0.10	8.32E-01	1.14	8.51E-05
<i>Polr3g</i>	0.21	5.85E-01	-0.83	4.16E-07
<i>Pon1</i>	1.86	4.12E-04	-3.75	1.22E-25
<i>Pon3</i>	0.30	3.18E-01	-0.79	1.50E-04
<i>Ppap2a</i>	-0.80	1.50E-02	0.82	2.23E-03
<i>Ppap2b</i>	0.41	3.50E-01	-1.53	2.88E-07
<i>Ppap2c</i>	-0.55	3.82E-02	2.01	4.38E-18
<i>Pparg</i>	1.14	2.22E-03	-0.28	3.99E-01
<i>Ppargc1a</i>	0.01	9.89E-01	-1.35	1.75E-03
<i>Ppcdc</i>	-0.47	3.79E-02	1.01	6.89E-06
<i>Ppp1cb</i>	0.30	8.63E-02	-0.64	2.92E-04
<i>Ppp1r12b</i>	-0.01	9.85E-01	-1.52	1.24E-05
<i>Ppp1r12c</i>	-0.36	4.15E-02	0.89	7.10E-06
<i>Ppp2r1b</i>	0.43	1.38E-01	-1.29	6.62E-13
<i>Ppp2r2b</i>	-0.21	8.52E-01	1.99	9.87E-03
<i>Ppp2r2c</i>	-1.48	1.19E-01	2.35	4.17E-02
<i>Ppp2r3a</i>	0.43	1.44E-02	-0.62	5.49E-04
<i>Ppp2r5a</i>	0.37	3.74E-02	-1.40	3.41E-16
<i>Ppp2r5b</i>	-0.14	6.91E-01	0.75	1.61E-03
<i>Ppt1</i>	-0.30	4.23E-02	0.69	2.20E-07
<i>Prdx6</i>	0.39	1.92E-01	-0.71	5.05E-03
<i>Rhoxnb</i>	0.58	1.14E-01	-2.27	3.22E-15
<i>Prim2</i>	-0.27	4.46E-01	0.69	2.30E-02
<i>Prkaa2</i>	1.03	1.63E-10	-1.60	1.76E-18
<i>Prkab1</i>	-0.48	2.07E-02	1.44	2.72E-11
<i>Prkab2</i>	0.20	7.12E-01	1.01	5.25E-03
<i>Prkag2</i>	0.06	8.33E-01	-0.86	2.15E-05
<i>Prkag3</i>	-0.51	6.35E-01	-1.62	1.91E-02
<i>Prkca</i>	-0.42	1.58E-01	1.60	3.29E-12
<i>Prkcc</i>	-0.81	3.45E-01	1.88	1.36E-02
<i>Prodh</i>	2.17	3.55E-06	-3.66	4.88E-22
<i>Prom1</i>	-1.95	8.64E-06	4.95	1.18E-29
<i>Psat1</i>	-1.71	4.46E-04	5.57	8.81E-57
<i>Psph</i>	-0.45	2.04E-01	1.67	1.28E-12
<i>Ptdss1</i>	0.37	2.26E-01	-1.24	1.20E-13
<i>Pten</i>	0.02	9.64E-01	-0.99	1.19E-12
<i>Ptgds</i>	2.53	NA	-1.74	2.68E-02
<i>Ptges</i>	-0.23	8.80E-01	4.41	3.78E-10
<i>Ptgs2</i>	-1.90	2.22E-03	3.03	1.47E-04
<i>Pxn</i>	-0.82	3.86E-07	0.58	1.16E-03
<i>Pycr1</i>	-0.78	2.93E-01	1.66	1.63E-02
<i>Pygb</i>	-0.85	1.11E-01	3.25	2.35E-29
<i>Pygl</i>	0.31	5.19E-01	-1.59	4.10E-18
<i>Qdpr</i>	0.54	3.22E-01	-1.34	2.11E-06

<i>Qprt</i>	-0.20	7.13E-01	-0.70	3.37E-03
<i>Rab10</i>	0.43	4.29E-03	-0.67	3.43E-11
<i>Rab14</i>	0.07	8.30E-01	-0.71	4.75E-05
<i>Rac2</i>	-0.10	8.55E-01	1.10	1.62E-03
<i>Raf1</i>	0.22	1.71E-01	-0.65	7.69E-08
<i>Rbl1</i>	-0.32	5.22E-01	1.56	2.63E-07
<i>Rdh10</i>	0.38	1.42E-01	-0.87	2.72E-09
<i>Rdh12</i>	-0.96	2.50E-01	2.03	2.64E-02
<i>Rdh16</i>	1.90	1.09E-05	-2.96	1.51E-66
<i>Rdh5</i>	-1.18	1.18E-02	1.54	1.51E-05
<i>Rdh9</i>	-2.43	3.38E-07	1.28	6.31E-04
<i>Relb</i>	0.01	9.91E-01	2.60	1.80E-20
<i>Retsat</i>	2.13	1.57E-08	-4.14	8.49E-34
<i>Rev3l</i>	0.17	4.40E-01	-0.83	5.98E-07
<i>Rgn</i>	1.93	2.72E-04	-3.39	7.58E-16
<i>Rpe</i>	0.33	1.10E-01	-0.77	3.76E-06
<i>Rpia</i>	0.21	5.68E-01	1.05	1.46E-04
<i>Rptor</i>	-0.07	8.45E-01	-0.74	5.51E-06
<i>Rrm2</i>	0.50	4.47E-01	1.86	3.61E-06
<i>Sardh</i>	0.52	2.44E-01	-1.83	6.57E-12
<i>Sat1</i>	-0.32	4.53E-01	1.05	5.77E-03
<i>Scd2</i>	-1.43	4.12E-04	5.52	3.81E-91
<i>Scly</i>	-0.04	9.42E-01	-0.63	3.00E-03
<i>Scp2</i>	1.18	1.50E-04	-2.63	1.16E-32
<i>Sdha</i>	0.57	4.59E-02	-1.74	8.35E-31
<i>Sdhb</i>	0.30	4.66E-01	-0.73	1.24E-03
<i>Sdhd</i>	0.19	6.45E-01	-0.96	2.62E-07
<i>Sds</i>	0.25	8.33E-01	-1.41	7.60E-08
<i>Sdsl</i>	-0.53	1.03E-02	0.74	1.31E-03
<i>Sephs2</i>	0.56	1.70E-01	-1.54	1.22E-09
<i>Sgms2</i>	0.25	2.89E-01	-1.44	2.71E-13
<i>Shc2</i>	-0.40	6.05E-01	6.89	1.35E-53
<i>Shc4</i>	-0.07	9.61E-01	1.66	2.56E-02
<i>Shmt1</i>	0.26	4.88E-01	-1.13	1.13E-05
<i>Shmt2</i>	0.38	2.21E-01	-1.01	1.02E-13
<i>Sirt1</i>	0.27	1.87E-01	-0.67	6.98E-05
<i>Slc27a5</i>	0.71	3.19E-01	-2.23	4.99E-13
<i>Smad3</i>	-0.47	9.33E-02	0.68	8.99E-03
<i>Smad9</i>	2.50	3.65E-04	-3.36	8.63E-04
<i>Smpd2</i>	0.57	2.31E-02	-0.85	7.54E-07
<i>Smpd3</i>	-1.34	6.77E-04	3.82	3.87E-51
<i>Smurf2</i>	0.16	4.72E-01	-0.65	2.49E-03
<i>Sord</i>	0.64	2.82E-01	-1.23	7.32E-03
<i>Sos1</i>	0.33	2.89E-02	-1.33	9.37E-24
<i>Sos2</i>	0.05	9.06E-01	-0.70	4.42E-06

<i>Sphk1</i>	-0.42	6.34E-01	2.29	2.76E-03
<i>Sphk2</i>	0.16	6.32E-01	-1.26	9.94E-13
<i>Spp1</i>	0.42	7.61E-01	3.49	1.83E-05
<i>Sptlc2</i>	-0.76	2.20E-02	1.58	8.99E-11
<i>Sqle</i>	-0.59	1.07E-01	0.76	1.47E-02
<i>Src</i>	0.27	7.31E-01	2.26	1.88E-07
<i>Srd5a1</i>	1.73	1.69E-07	-3.01	1.45E-41
<i>Srd5a2</i>	-0.73	3.76E-02	0.96	1.92E-03
<i>Srebf1</i>	-0.06	9.11E-01	-0.77	1.24E-02
<i>Srm</i>	0.02	9.75E-01	1.16	8.53E-05
<i>St3gal2</i>	-0.92	4.36E-02	2.12	3.16E-11
<i>St6galnac</i>	-1.20	1.90E-02	2.12	8.23E-05
<i>St6galnac</i>	-0.41	1.75E-01	-0.66	7.26E-03
<i>Strada</i>	-0.10	8.19E-01	0.78	1.84E-04
<i>Stradb</i>	0.82	1.25E-03	-1.09	8.72E-07
<i>Sucla2</i>	0.63	1.23E-02	-1.57	1.60E-14
<i>Suclg2</i>	1.02	9.03E-05	-0.95	8.64E-04
<i>Sult1a1</i>	0.49	5.01E-01	0.76	3.76E-02
<i>Sult1e1</i>	2.45	NA	5.34	5.23E-07
<i>Sult2a1</i>	-1.27	1.80E-01	3.94	1.03E-03
<i>Sult2b1</i>	-1.14	5.19E-02	4.36	9.91E-14
<i>Syk</i>	-0.24	6.64E-01	1.38	5.26E-04
<i>Synj2</i>	-0.47	3.06E-02	2.85	2.30E-29
<i>Tab1</i>	-0.62	4.44E-02	1.05	2.59E-05
<i>Tab2</i>	-0.15	6.39E-01	-0.83	1.49E-03
<i>Tab3</i>	-0.01	9.83E-01	-0.64	3.22E-03
<i>Tat</i>	0.36	6.34E-01	-1.80	5.49E-05
<i>Tbc1d1</i>	-0.40	2.88E-01	0.90	1.21E-02
<i>Tbxas1</i>	-0.43	2.99E-01	1.09	9.54E-03
<i>Tdo2</i>	0.02	9.83E-01	-1.51	5.24E-05
<i>Tgds</i>	0.23	5.28E-01	-1.07	1.91E-05
<i>Tgfb1</i>	-0.53	2.72E-01	1.23	4.48E-03
<i>Tgfb2</i>	0.16	8.89E-01	2.99	8.06E-11
<i>Tgfb3</i>	-0.62	2.93E-01	2.35	7.57E-06
<i>Tgfbr2</i>	-1.00	5.16E-03	1.79	2.26E-07
<i>Tgif1</i>	-0.46	1.06E-01	1.16	7.04E-05
<i>Tgif2</i>	-0.09	8.27E-01	0.99	2.41E-03
<i>Thbs1</i>	-1.10	1.08E-01	3.71	1.30E-12
<i>Thbs3</i>	-0.18	8.45E-01	1.54	1.53E-02
<i>Thtpa</i>	0.80	3.25E-03	-1.17	2.58E-04
<i>Ticam2</i>	0.00	9.99E-01	1.67	4.76E-03
<i>Tirap</i>	-0.16	6.45E-01	-0.64	1.94E-02
<i>Tk1</i>	0.76	2.76E-02	-1.30	1.37E-06
<i>Tln2</i>	0.21	7.90E-01	-1.71	2.62E-04
<i>Tlr4</i>	-0.11	8.33E-01	0.94	1.50E-02

<i>Tm7sf2</i>	0.41	4.63E-01	-1.35	1.03E-05
<i>Tnc</i>	-0.86	2.07E-01	2.89	1.01E-06
<i>Tnf</i>	-0.20	8.36E-01	3.43	7.41E-07
<i>Tnfaip3</i>	0.32	6.39E-01	1.33	9.98E-05
<i>Tnfrsf11a</i>	-0.15	8.55E-01	1.57	4.04E-04
<i>Tnfsf13b</i>	0.31	7.48E-01	2.07	4.82E-03
<i>Traf1</i>	-0.11	9.11E-01	2.54	9.00E-05
<i>Traf5</i>	-0.43	5.63E-02	0.81	3.06E-04
<i>Traf6</i>	0.27	2.89E-01	-1.02	6.75E-07
<i>Treh</i>	1.44	4.49E-02	0.12	8.78E-01
<i>Trim25</i>	0.24	3.09E-01	-0.82	1.84E-05
<i>Tsc1</i>	-0.14	6.95E-01	-0.84	9.88E-07
<i>Tsc2</i>	-0.04	8.36E-01	-0.79	1.04E-05
<i>Tst</i>	0.08	9.00E-01	-0.92	3.90E-03
<i>Tymp</i>	-0.05	9.55E-01	-2.75	1.14E-10
<i>Uap1l1</i>	-0.55	6.45E-02	3.19	4.49E-41
<i>Uck1</i>	0.09	8.06E-01	-0.97	6.31E-10
<i>Ugdh</i>	0.94	1.24E-03	0.02	9.57E-01
<i>Ugt1a1</i>	0.76	2.61E-01	-2.81	2.85E-08
<i>Ugt1a10</i>	2.36	4.01E-04	-3.43	8.01E-06
<i>Ugt1a5</i>	0.98	1.21E-01	-1.94	1.86E-04
<i>Ugt1a6a</i>	0.79	1.49E-01	-2.21	1.33E-05
<i>Ugt1a6b</i>	0.60	2.79E-01	-2.23	4.10E-06
<i>Ugt1a9</i>	2.80	8.92E-07	-4.89	1.07E-64
<i>Ugt2a3</i>	0.68	2.33E-01	-1.94	2.17E-09
<i>Ugt2b1</i>	1.08	3.88E-02	-3.25	2.17E-41
<i>Ugt2b34</i>	0.80	1.17E-03	-1.34	9.11E-10
<i>Ugt2b35</i>	0.71	1.06E-02	-0.91	1.73E-03
<i>Ugt2b36</i>	0.74	8.77E-02	-1.19	2.28E-04
<i>Ugt2b37</i>	2.76	NA	-1.86	2.67E-05
<i>Ugt2b5</i>	1.28	6.01E-06	-1.92	5.96E-18
<i>Uox</i>	0.09	9.33E-01	-0.90	7.62E-03
<i>Upb1</i>	0.40	4.91E-01	-0.96	4.32E-03
<i>Upp1</i>	-0.33	NA	1.72	4.97E-03
<i>Upp2</i>	1.64	2.61E-02	-3.56	NA
<i>Uqcrc1</i>	0.40	1.05E-01	-0.86	7.85E-06
<i>Uqcrc2</i>	0.53	2.99E-02	-1.10	5.24E-09
<i>Uqcrfs1</i>	0.48	1.19E-01	-0.81	3.05E-05
<i>Uroc1</i>	-0.49	6.03E-01	-0.62	1.69E-02
<i>Urod</i>	0.17	6.00E-01	-0.63	1.08E-04
<i>Vasp</i>	-0.64	8.31E-04	1.62	3.76E-27
<i>Vav1</i>	-0.16	7.78E-01	1.38	6.97E-05
<i>Vav2</i>	-0.04	9.48E-01	-0.97	6.69E-03
<i>Vav3</i>	-1.34	5.43E-08	2.42	6.82E-13
<i>Vcam1</i>	-0.97	8.18E-04	3.06	6.25E-30

<i>Vegfc</i>	-0.24	5.34E-01	0.77	1.34E-02
<i>Vtn</i>	0.34	9.57E-02	-0.81	1.47E-05
<i>Xdh</i>	0.39	2.76E-01	-1.24	1.99E-08
<i>Xiap</i>	-0.13	5.76E-01	-0.69	4.09E-04
<i>Xylb</i>	0.53	2.62E-02	-0.93	2.03E-06
<i>Zap70</i>	-3.63	2.15E-16	1.49	2.57E-03
<i>Zfyve9</i>	0.10	8.25E-01	-0.79	1.08E-02