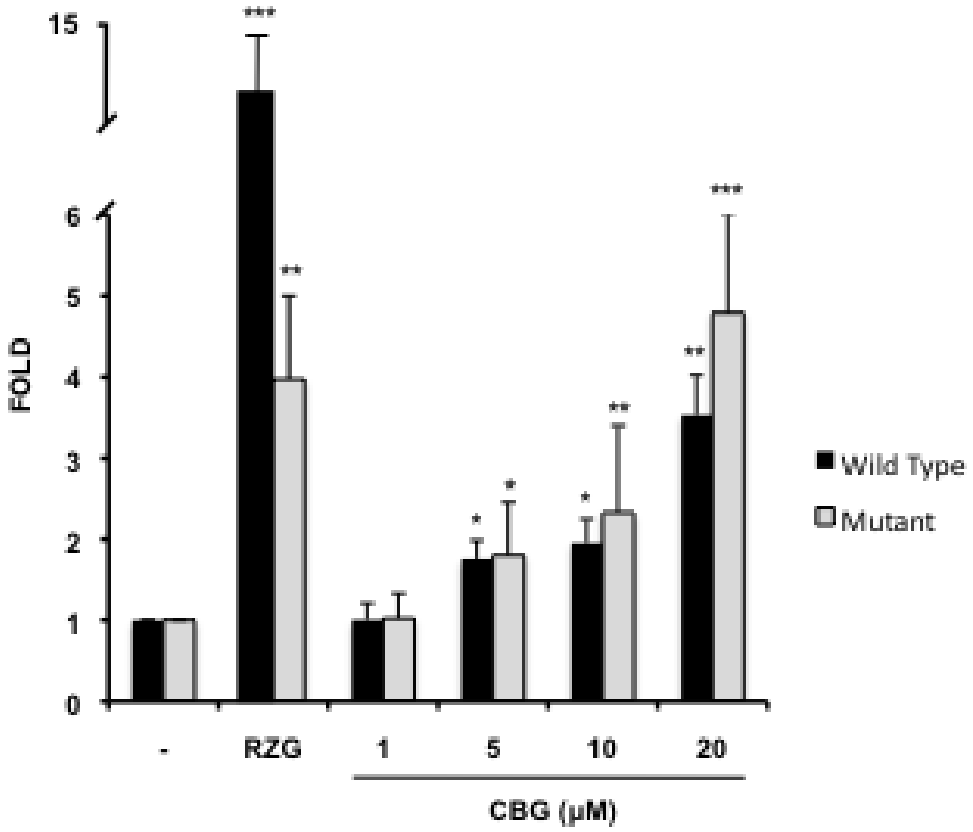
Supplementary Figure 1



Effect of CBG on PPARγ transcriptional activity. STHdh$^{Q7/Q7}$ (wild-type) and STHdh$^{Q111/Q111}$ (mutant) cells were co-transfected with GAL4-PPARγ and GAL4-luc. Cells were treated with of CBG at the indicated concentrations for 12 h and luciferase activity measured in the cell lysates. Fold activation level was calculated, taking the control sample as reference. Data are expressed as mean ± S.D. of at least three independent experiments. *$p < 0.05$, **$p < 0.01$ and ***$p < 0.005$ in an unpaired two-tailed Student's *t* test.

Table 1S. HD array analysis (84 genes) showing their up- or down-regulatory responses in the striatum of control and 3NP-lesioned mice treated with CBG or vehicle. Values correspond to number of folds that a specific gene is up- (positive value) or down-regulated (negative value).

3NP vs control

Gene	Fold Up- or Down-Regulation
Akt1	-1,0396
Apoe	-1,4804
Aqp1	1,0898
Arfip2	1,2008
Atp2b2	-1,2025
Bax	-1,0253
Bbox1	-1,0762
Bdnf	1,5845
C3	1,1761
Calb1	-1,1376
Casp3	1,1925
Casp8	1,3890
Cd44	**3,0189**
Cltc	1,1519
Cnr1	-1,0042
Creb1	-1,1615
Crebbp	1,1680
Dctn1	1,1127
Dlg4	-1,2449
Eef1a2	-1,0112
Egfr	-1,2277
Elmo1	1,2781
Fgf12	1,2260
Gabrd	-1,1696
Gja1	-1,6088
Gjb6	1,2260
Gnaq	1,0526
Gpx1	1,2092
Grb2	1,1599
Grin2a	1,3794
Grin2b	1,2431
Grm5	-1,0614
Hap1	1,0098
Hdac1	1,2176
Hdac2	-1,1142
Hip1	1,1599
Homer1	-1,1455
Hpca	1,1127
Htt	1,1050
Ift57	1,0526
Igf1	1,3416
Itpr1	-1,0541
Kcnab1	-1,1142
Kcnab2	1,0238

Gene	Fold Up- or Down-Regulation
Kcnc3	1,0098
Lpl	1,0454
Map3k10	-1,0989
Ncor1	1,1204
Nefl	-1,5326
Ngef	-1,0468
Ntrk2	1,2431
Pacsin1	-1,0324
Pgk1	1,0454
Plcb4	1,0238
Plod2	-1,0837
Ppargc1a	1,3794
Ppp3ca	-1,0253
Prkcb	1,1050
Prpf40a	1,2518
Ptpn11	1,4083
Rab6	1,0673
Rcor1	1,0168
Rest	1,5845
Rgs4	-1,2449
Rilp	1,9106
Rph3a	-1,3717
Rxrb	-1,0042
Sgk1	2,7207
Sin3a	1,0028
Slc14a1	1,8583
Slc25a4	1,0822
Snap25	1,0168
Sod1	1,1127
Sox2	-1,1142
Sp1	-1,1535
Sympk	-1,0989
Syn1	1,0098
Tac1	1,1439
Tbp	1,1761
Tgm2	2,0907
Tollip	1,3324
Trp53	1,1599
Tubb5	-1,1297
Zbtb16	1,6178
Actb	1,1439
B2m	1,0310
Gapdh	-1,1065
Gusb	-1,0253
Hsp90ab1	-1,0396

3NP+CBG vs control

Gene	Fold Up- or Down-Regulation
Akt1	-1,1810
Apoe	-1,1892
Aqp1	1,1096
Arfip2	-1,0570
Atp2b2	-1,0792
Bax	-1,0425
Bbox1	-1,1647
Bdnf	1,0644
C3	1,0792
Calb1	-1,2226
Casp3	-1,3195
Casp8	1,3566
Cd44	-1,3104
Cltc	-1,1096
Cnr1	-1,1173
Creb1	1,1567
Crebbp	1,0570
Dctn1	1,1487
Dlg4	-1,1408
Eef1a2	1,0070
Egfr	-1,1647
Elmo1	1,1810
Fgf12	1,0353
Gabrd	-1,0570
Gja1	-1,0353
Gjb6	1,1567
Gnaq	-1,0353
Gpx1	1,2746
Grb2	1,0353
Grin2a	1,1892
Grin2b	1,2058
Grm5	1,0070
Hap1	-1,0497
Hdac1	1,0353
Hdac2	-1,1567
Hip1	1,1408
Homer1	1,0281
Hpca	1,0210
Htt	-1,0000
Ift57	1,1329
Igf1	1,1251
Itpr1	1,1892
Kcnab1	-1,1647
Kcnab2	1,0353

Gene	Fold Up- or Down-Regulation
Kcnc3	1,0943
Lpl	-1,0140
Map3k10	1,0210
Ncor1	1,0718
Nefl	-1,2142
Ngef	-1,1096
Ntrk2	1,0570
Pacsin1	-1,0425
Pgk1	-1,1408
Plcb4	1,1408
Plod2	-1,1647
Ppargc1a	1,1728
Ppp3ca	1,0353
Prkcb	1,0644
Prpf40a	1,0281
Ptpn11	1,0792
Rab6	1,1647
Rcor1	-1,0281
Rest	1,0210
Rgs4	-1,1647
Rilp	-1,0570
Rph3a	-1,0792
Rxrb	1,1567
Sgk1	-1,4142
Sin3a	1,1019
Slc14a1	1,2311
Slc25a4	-1,1096
Snap25	-1,0140
Sod1	1,0210
Sox2	-1,1019
Sp1	-1,0867
Sympk	1,0425
Syn1	1,0570
Tac1	1,3472
Tbp	1,1975
Tgm2	1,5911
Tollip	1,0718
Trp53	1,3851
Tubb5	-1,0718
Zbtb16	1,0943
Actb	-1,0644
B2m	1,1728
Gapdh	-1,2483
Gusb	1,0867
Hsp90ab1	1,0425

Table 2S. HD array analysis (84 genes) showing their up- or down-regulatory responses in the striatum of wild-type and R6/2 mice treated with CBG or vehicle. Values correspond to number of folds that a specific gene is up- (positive value) or down-regulated (negative value).

R6/2 vs wild-type

Gene	Fold Up- or Down-Regulation	Gene	Fold Up- or Down-Regulation
Akt1	1,0733	Kcnc3	-1,1313
Apoe	-2,3424	Lpl	-1,4722
Aqp1	-1,4025	Map3k10	1,0807
Arfip2	-1,0629	Ncor1	1,3967
Atp2b2	-2,5633	Nefl	1,4459
Bax	1,1503	Ngef	-1,8251
Bbox1	2,5883	Ntrk2	1,0958
Bdnf	-1,2209	Pacsin1	-1,6795
C3	-2,6537	Pgk1	1,1423
Calb1	1,4969	Plcb4	-1,5562
Casp3	1,3491	Plod2	1,7435
Casp8	1,3398	Ppargc1a	1,0014
Cd44	**-3,3589**	Ppp3ca	**-3,0063**
Cltc	1,0084	Prkcb	-1,1631
Cnr1	**-3,9945**	Prpf40a	1,3491
Creb1	1,1345	Ptpn11	1,1663
Crebbp	1,6609	Rab6	1,3122
Dctn1	-1,8125	Rcor1	2,8521
Dlg4	-2,4083	Rest	-1,4221
Eef1a2	-1,8895	Rgs4	**-3,2898**
Egfr	1,3122	Rilp	-1,2816
Elmo1	-1,0852	Rph3a	-1,5347
Fgf12	-1,1157	Rxrb	**-3,8053**
Gabrd	**-7,0031**	Sgk1	-1,5889
Gja1	**-3,3823**	Sin3a	-2,3751
Gjb6	-1,2041	Slc14a1	-1,3268
Gnaq	1,6044	Slc25a4	1,5497
Gpx1	1,5178	Snap25	-1,0777
Grb2	1,8050	Sod1	1,9480
Grin2a	-1,1958	Sox2	-1,1080
Grin2b	-2,1555	Sp1	1,6609
Grm5	1,0367	Sympk	**-5,4945**
Hap1	2,2847	Syn1	1,0882
Hdac1	1,7195	Tac1	1,2159
Hdac2	2,2532	Tbp	1,5284
Hip1	-1,0338	Tgm2	1,6609
Homer1	-1,9026	Tollip	1,4459
Hpca	**-3,0908**	Trp53	1,2159
Htt	-1,6223	Tubb5	-1,1004
Ift57	1,0733	Zbtb16	-1,4722
Igf1	-1,8506	Actb	-1,9697
Itpr1	-2,7856	B2m	1,5497
Kcnab1	-1,5670	Gapdh	1,0367
Kcnab2	1,1503	Gusb	1,1583
		Hsp90ab1	1,0585

R6/2+CBG vs wild-type

Gene	Fold Up- or Down-Regulation	Gene	Fold Up- or Down-Regulation
Akt1	-1,0483	Kcnc3	-1,1313
Apoe	-2,5105	Lpl	-2,9856
Aqp1	-1,5999	Map3k10	-1,0852
Arfip2	1,0439	Ncor1	1,0154
Atp2b2	-3,0063	Nefl	1,2414
Bax	-1,0556	Ngef	-2,1856
Bbox1	-1,2995	Ntrk2	-1,1958
Bdnf	1,2414	Pacsin1	-1,4025
C3	-3,7529	Pgk1	1,0295
Calb1	-1,5562	Plcb4	-1,3268
Casp3	1,2675	Plod2	-1,1712
Casp8	-1,4722	Ppargc1a	-1,2041
Cd44	-1,2728	Ppp3ca	-2,5456
Cltc	-1,1080	Prkcb	-2,0820
Cnr1	-4,0784	Prpf40a	1,2243
Creb1	-1,1392	Ptpn11	-1,1712
Crebbp	1,0585	Rab6	1,3305
Dctn1	-1,7630	Rcor1	1,2329
Dlg4	-2,4419	Rest	-2,0392
Eef1a2	-1,6223	Rgs4	-3,2898
Egfr	-1,2294	Rilp	-1,4928
Elmo1	-1,8000	Rph3a	-1,4520
Fgf12	-1,1157	Rxrb	-1,8506
Gabrd	-4,3409	Sgk1	-1,4722
Gja1	-3,3357	Sin3a	-1,8125
Gjb6	-1,1794	Slc14a1	-1,7876
Gnaq	1,1266	Slc25a4	1,3775
Gpx1	1,0439	Snap25	1,0733
Grb2	1,2414	Sod1	1,1034
Grin2a	-1,3454	Sox2	-1,2816
Grin2b	-1,8895	Sp1	1,0439
Grm5	-1,8251	Sympk	-3,3823
Hap1	-1,0556	Syn1	1,0882
Hdac1	1,2763	Tac1	-1,3177
Hdac2	1,2852	Tbp	1,1423
Hip1	-1,8378	Tgm2	1,2763
Homer1	-2,2315	Tollip	1,1663
Hpca	-4,1068	Trp53	1,1423
Htt	-1,9159	Tubb5	-1,0703
Ift57	-1,1471	Zbtb16	1,2588
Igf1	-1,2294	Actb	-1,5889
Itpr1	-2,1705	B2m	1,2329
Kcnab1	-2,5991	Gapdh	1,1111
Kcnab2	-1,1004	Gusb	1,1991
		Hsp90ab1	-1,0338