

Table S1 Quality control details on the mRNA-seq experiments

Sample	Raw Reads	Valid Reads	Valid Ratio(%)	Q20%	Q30%	GC content%
NC_1	52867420	52296914	98.92	99.49	94.81	54
NC_2	62011188	61404486	99.02	99.56	95.54	54
NC_3	50055334	49522034	98.93	99.54	95.32	53.50
CNP 10 ⁻⁷ mol/l-1	64651468	63933018	98.89	99.60	95.50	53.50
CNP 10 ⁻⁷ mol/l-2	45937700	45463880	98.97	99.39	91.56	53.50
CNP 10 ⁻⁷ mol/l-3	49537056	49087494	99.09	98.85	88.61	54.50

Table S2. Differential genes between 10⁻⁷ mol/L CNP and control group

Genes	GeneID	10⁻⁷ mol/L CNP	Control	Log1.5Fold Change	p value
PLCB2	423014	5.92	18.90	-8.89	0.05
THY1	378897	279.46	664.67	-4.22	0.03
PRDX6	429062	2.59	6.90	-3.63	0.04
PHF13	101750144	2.84	6.03	-3.41	0.03
PGAM1	428969	85.11	338.54	-3.40	0.04
F10	395876	4.67	15.96	-2.80	0.04
TRIB2	378919	7.99	11.84	-2.74	0.02
ANKRD9	423469	0.39	1.83	-2.65	0.04
CDCA4	423500	1.87	4.93	-2.46	0.00
MB21D2	424905	0.18	2.15	-2.43	0.02
TPD52	770339	5.02	16.03	-2.38	0.01
SNORA47	112530794	2.63	6.06	-2.33	0.02
LYSMD4	427510	1.40	5.24	-2.31	0.01
NFIL3	395326	0.54	1.44	-2.26	0.03
C16orf72	416639	6.00	6.80	-2.06	0.04
TOMM20	426309	83.01	124.63	-2.00	0.01
bFGF	396413	2.61	3.48	-1.99	0.04
SYS1	419183	10.05	16.36	-1.96	0.02

Table S2. Differential genes between 10⁻⁷ mol/L CNP and control group

CLN8	421902	4.19	4.42	-1.81	0.05
BLOC1S5	420866	1.30	1.85	-1.80	0.04
UQCR11	770135	39.89	61.87	-1.77	0.02
ITPK1	423421	0.40	1.66	-1.70	0.05
KPNA1	418271	4.35	8.93	-1.69	0.02
SEMA3B	426234	1.59	3.58	-1.64	0.02
SCNM1	425744	10.14	21.80	-1.64	0.01
NRK	422380	0.59	0.97	-1.62	0.03
PWP1	418066	27.08	35.37	-1.60	0.04
TMEM86A	428847	1.11	1.77	-1.60	0.04
IFNGR2	418502	22.14	37.35	-1.52	0.00
TMEM59	424656	25.03	31.48	-1.50	0.02
HBEGF	395654	7.04	10.85	-1.45	0.04
GPX7	424643	16.26	20.96	-1.43	0.04
CDH3	414845	1.54	3.53	-1.42	0.04
KPNA3	418870	4.68	5.55	-1.40	0.03
LGALS2	425107	4.72	8.49	-1.40	0.00
TIMM22	417594	10.06	17.97	-1.40	0.03
TMEM254	423634	18.18	19.98	-1.33	0.02
C19orf70	100858091	13.65	19.02	-1.32	0.03

Table S2. Differential genes between 10⁻⁷ mol/L CNP and control group

EFHD2	430669	12.19	17.17	-1.26	0.02
TGM2	396432	59.77	99.01	-1.26	0.00
NOS3	100858754	1.12	1.64	-1.25	0.05
BLB1	693256	8.36	11.66	-1.25	0.05
CDC37L1	426535	0.88	1.58	-1.24	0.03
SLC38A3	429200	1.01	2.59	-1.21	0.02
SCN4B	419774	3.12	5.68	-1.19	0.04
DCAKD	419967	1.74	3.08	-1.16	0.03
GKN1	101748159	1.78	2.90	-1.16	0.01
KLF4	770254	1.82	2.99	-1.14	0.00
FKBP6	417460	1.89	3.16	-1.14	0.05
FBXW4	770459	1.34	1.99	-1.13	0.01
NCF4	418052	1.54	2.35	-1.12	0.00
C12orf43	416966	1.23	2.37	-1.10	0.01
Sox9	374148	2.87	4.47	-1.08	0.01
PUM3	427350	0.92	1.23	-1.04	0.01
CD151	423105	25.36	31.59	-1.03	0.03
SRPR	419713	77.88	120.20	-1.03	0.02
GPR37	417748	4.40	6.29	-1.02	0.01
UACA	415569	1.18	1.97	-1.01	0.03

Table S2. Differential genes between 10⁻⁷ mol/L CNP and control group

ATP11C	422254	10.74	6.89	1.00	0.02
ST3GAL1	396140	3.18	1.52	1.01	0.01
DPYD	429083	2.01	0.96	1.01	0.01
VIPR1	395329	1.01	0.48	1.02	0.01
INCENP	396270	3.29	1.84	1.02	0.02
FABP5	420197	4.16	3.44	1.03	0.04
MUSK	373897	2.74	1.56	1.03	0.02
SORCS1	423885	3.65	2.21	1.06	0.03
PLCD4	424214	1.21	0.74	1.07	0.01
COL3A1	396340	938.92	599.24	1.08	0.01
DCBLD2	418379	27.59	20.61	1.10	0.01
GALNT2	421540	14.78	8.60	1.11	0.00
SYT6	428270	7.16	5.01	1.11	0.02
HAPLN3	415495	1.31	0.61	1.11	0.05
ZDHHC4	416561	1.65	1.04	1.11	0.05
CLDN1	424910	0.39	0.06	1.13	0.05
MCM5	418058	20.16	12.97	1.13	0.02
MCM2	416027	16.99	12.22	1.13	0.05
VMP1	417635	6.74	4.99	1.14	0.02
PTPRU	395153	6.68	3.98	1.14	0.01

Table S2. Differential genes between 10⁻⁷ mol/L CNP and control group

ANGPTL1	770850	0.55	0.04	1.15	0.02
ACTC1	423298	21.95	14.43	1.18	0.04
PTGFRN	418449	8.56	5.43	1.20	0.01
NQO1	769737	7.52	4.92	1.22	0.01
C2orf40	771055	22.75	14.88	1.23	0.04
LMNB2	396222	8.58	4.10	1.23	0.03
ENPP4	422055	3.44	2.04	1.23	0.00
RHOU	428589	4.67	2.65	1.24	0.01
GDE1	416612	5.49	4.78	1.24	0.01
PAFAH1B1	374224	26.58	13.84	1.25	0.03
SERINC2	419558	4.88	2.54	1.25	0.02
GPD2	424321	10.86	6.45	1.25	0.03
GYPC	424230	0.62	0.17	1.27	0.02
CHRNA1	395608	5.64	2.89	1.27	0.05
RGS5	769998	5.37	3.24	1.27	0.04
CD38	422827	0.72	0.27	1.29	0.05
MYOD1	374048	3.15	1.58	1.30	0.03
OPCML	395422	0.98	0.49	1.31	0.03
CKB	396248	9.96	6.75	1.31	0.04
ATG4A	772074	5.59	2.72	1.32	0.00

Table S2. Differential genes between 10⁻⁷ mol/L CNP and control group

APOA1	396536	952.78	607.50	1.32	0.03
VSIG4	422170	2.29	1.26	1.34	0.02
CAPN6	422341	4.16	2.10	1.36	0.02
SNX24	426798	4.01	1.74	1.36	0.04
CLMP	419747	26.62	16.87	1.36	0.04
RASD2	418057	1.19	0.47	1.39	0.04
BBOF1	423344	1.55	0.18	1.40	0.01
TK1	395719	12.67	6.92	1.40	0.03
ISCU	416891	58.73	25.59	1.49	0.02
NUS1	421733	1.41	0.39	1.53	0.01
DHDDS	419543	9.03	4.75	1.53	0.04
GAS7	417305	1.05	0.10	1.53	0.04
TUBGCP3	418750	0.52	0.14	1.54	0.04
ABCA1	373945	3.37	1.70	1.55	0.04
FAM198A	100857278	1.26	0.22	1.56	0.03
GPNMB	428431	4.77	2.58	1.58	0.04
GEMIN8	418631	5.00	2.92	1.59	0.00
GCHFR	423003	3.00	0.98	1.59	0.03
PRPSAP1	417360	29.43	15.09	1.60	0.00
ZC3HC1	416679	4.93	1.78	1.61	0.02

Table S2. Differential genes between 10⁻⁷ mol/L CNP and control group

FRAS1	422506	10.72	5.56	1.62	0.00
GDNF	395569	0.85	0.02	1.63	0.01
CHRNA4	395606	4.77	2.09	1.63	0.01
GATA6	396390	1.75	0.94	1.64	0.00
TUBAL3	416694	13.84	6.75	1.74	0.02
MYL9	396215	273.36	130.73	1.76	0.00
TNR	396213	32.08	16.50	1.77	0.05
POPDC3	395434	2.80	1.01	1.77	0.01
KCNQ3	420325	1.12	0.16	1.83	0.01
APBB1IP	420492	0.83	0.11	1.84	0.04
HOXA7	395290	6.98	2.91	2.01	0.02
RBFOX2	418055	17.96	8.14	2.08	0.00
PTN	418125	5.40	1.30	2.10	0.02
RNF207	419374	7.39	2.68	2.17	0.01
SRM	771447	58.34	23.21	2.20	0.00
CDV3	420693	9.31	3.29	2.26	0.00
FABP4	374165	30.16	8.83	3.16	0.00
CCDC43	419971	10.66	3.77	3.21	0.04
ENTPD2	395797	1.33	0.03	3.23	0.01
ANTXRL	423775	1.92	0.14	3.47	0.05

Table S2. Differential genes between 10^{-7} mol/L CNP and control group

WTIP	769595	3.69	0.31	3.58	0.01
CLN5	101752092	33.79	10.77	3.78	0.03
SLC39A9	423261	10.05	2.03	4.47	0.00
ND5	807642	55.67	0.16	12.83	0.04