

**Supplementary Table 2. List of differentially expressed genes (>2-fold change) between C666-1 cells transfected with siEZH2+ 4 Gy RT, compared to control cells + 4 Gy RT, at 72 hrs post-transfection.**

Probe ID	Gene Symbol	Fold Change
204734_at	KRT15	23.8178
1559584_a_at	C16orf54 /// hCG_164	14.41481
207935_s_at	KRT13	13.20488
201341_at	ENC1	10.70625
205044_at	GABRP	11.86056
201012_at	ANXA1	11.35268
203407_at	PPL	8.18506
228835_at	---	7.714197
209800_at	KRT16	7.735605
1554830_a_at	STEAP3	6.895001
212925_at	C19orf21	6.736003
231849_at	KRT80	6.167937
211580_s_at	PIK3R3	7.456008
226333_at	IL6R	5.251545
209173_at	AGR2	5.862267
214142_at	ZG16	5.634611
228640_at	PCDH7	5.834217
240964_at	---	5.717948
220237_at	ATG3	8.493845
212417_at	SCAMP1	5.824543
203907_s_at	IQSEC1	4.567305
212807_s_at	SORT1	4.957934
213665_at	SOX4	4.719934
213413_at	STON1	3.40724
1558404_at	LOC644242	4.19699
238622_at	RAP2B	3.379212
231478_at	PDE4C	3.872863
228457_at	---	5.497203
243349_at	KIAA1324	4.718698
209030_s_at	CADM1	3.326908
206404_at	FGF9	3.595885
226688_at	C3orf23	4.242644
241905_at	PIK3C2A	3.344226
212636_at	QKI	4.184523
202968_s_at	DYRK2	3.211493
221962_s_at	UBE2H	3.514257
225659_at	SPOPL	3.945801
207980_s_at	CITED2	3.085187
202924_s_at	PLAGL2	7.473127
204525_at	PHF14	3.679502
243702_at	---	4.937184
241718_x_at	---	6.353836
243278_at	FOXP2	3.08582

231283_at	MGAT4A	3.073014
219218_at	BAHCC1	2.970778
220195_at	MBD5	2.842466
221994_at	PDLIM5	2.920732
222891_s_at	BCL11A	2.824322
244441_at	---	2.890339
235798_at	RP11-679B17.1	2.867008
213485_s_at	ABCC10	2.928444
203665_at	HMOX1	3.3436
57715_at	FAM26B	3.761197
225658_at	SPOPL	2.800925
228762_at	LFNG	2.834554
207069_s_at	SMAD6	3.024104
219520_s_at	WWC3	2.769735
208606_s_at	WNT4	3.758719
220940_at	KIAA1641	3.244968
219498_s_at	BCL11A	3.227735
201393_s_at	IGF2R	6.284793
226615_at	---	3.163225
229553_at	PGM2L1	2.597177
235453_at	TOR1AIP2	2.577105
222585_x_at	KRCC1	2.93197
238045_at	TMEM65	2.849015
205398_s_at	SMAD3	3.610029
203167_at	TIMP2	3.845546
239010_at	DUXAP10	3.93015
213664_at	SLC1A1	3.61472
210048_at	NAPG	3.126002
211708_s_at	SCD	2.503183
224725_at	MIB1	2.788696
204179_at	MB	2.51739
204542_at	ST6GALNAC2	2.700739
204602_at	DKK1	2.48094
201911_s_at	FARP1	2.963396
203451_at	LDB1	2.501921
236097_at	---	3.064892
227490_at	WDFY2	2.964734
212731_at	ANKRD46	2.438439
203420_at	FAM8A1	2.591769
1553102_a_at	CCDC69	2.604876
209650_s_at	TBC1D22A	2.385518
221280_s_at	PARD3	2.407341
242981_at	---	3.018004
1553960_at	SNX21	3.468895
203285_s_at	HS2ST1	2.609092
1554360_at	FCHSD2	3.759121
202761_s_at	SYNE2	3.479751

1558017_s_at	---	5.002735
218342_s_at	ERMP1	2.661873
1565951_s_at	CHML	4.993031
225739_at	RAB11FIP4	2.317056
236029_at	FAT3	3.349017
211889_x_at	CEACAM1	2.726363
223385_at	CYP2S1	2.327044
238164_at	USP6NL	3.801478
204863_s_at	IL6ST	11.79951
211404_s_at	APLP2	2.476798
1554110_at	CDCP1	2.929331
229256_at	PGM2L1	9.205247
219677_at	SPSB1	3.99172
212912_at	RPS6KA2	3.862618
227549_x_at	ZDHHC24	3.461208
214077_x_at	MEIS3P1	2.854102
230580_at	---	2.381987
219171_s_at	ZNF236	2.252876
205128_x_at	PTGS1	2.426505
225008_at	---	2.664357
206580_s_at	EFEMP2	2.55171
209333_at	ULK1	2.56209
239802_at	LOC56755	2.260549
222886_at	---	2.601649
235258_at	DCP2	5.962633
244471_x_at	PANX2	2.889416
1552928_s_at	MAP3K7IP3	3.524827
225481_at	FRMD6	2.795887
218093_s_at	ANKRD10	2.25651
218904_s_at	C9orf40	2.623619
209357_at	CITED2	2.679211
226382_at	LOC283070	2.385807
203283_s_at	HS2ST1	2.343486
212729_at	DLG3	2.773031
210087_s_at	MPZL1	2.216051
229699_at	---	2.890584
204109_s_at	NFYA	2.34541
1559052_s_at	PAK2	4.249599
206576_s_at	CEACAM1	2.331763
216417_x_at	HOXB9	2.489074
225989_at	HERC4	2.827261
39548_at	NPAS2	2.883704
204604_at	PFTK1	2.509731
211000_s_at	IL6ST	2.637681
214931_s_at	SRPK2	2.164293
200878_at	EPAS1	2.209278
225632_s_at	RAB43	2.768324

218137_s_at	SMAP1	2.560725
230643_at	WNT9A	5.445072
209254_at	KIAA0265	2.664271
205634_x_at	ZDHHC24	2.722167
227134_at	SYTL1	2.227053
201416_at	SOX4	2.627034
209712_at	SLC35D1	2.597686
207904_s_at	LNPEP	2.137964
209705_at	MTF2	3.196983
212196_at	IL6ST	2.539465
233589_x_at	C9orf167	2.165695
228845_at	P76	2.315875
232020_at	SMURF2	2.717743
225912_at	TP53INP1	2.998576
220991_s_at	RNF32	2.120334
204359_at	FLRT2	2.092587
219616_at	ACSS3	2.224467
205416_s_at	ATXN3	4.708254
225328_at	---	5.346989
207836_s_at	RBPMS	2.263388
206799_at	SCGB1D2	3.193866
244548_at	---	2.306964
221541_at	CRISPLD2	3.318293
212845_at	SAMD4A	2.735748
226794_at	STXBP5	3.106548
225623_at	KIAA1737	2.077749
208653_s_at	CD164	2.354781
222693_at	FNDC3B	2.125523
203390_s_at	KIF3C	2.15173
212717_at	PLEKHM1	2.267349
242727_at	ARL5B	3.301188
220201_at	RC3H2	2.078809
229513_at	STRBP	2.904235
207761_s_at	METTL7A	2.462884
228708_at	RAB27B	2.055593
228567_at	---	3.713051
229509_at	MFSD8	2.217868
234452_at	HIBADH	2.083896
232366_at	KIAA0232	3.886314
213435_at	SATB2	2.251395
219583_s_at	SPATA7	3.436268
1568951_at	ZNF280D	2.247836
200770_s_at	LAMC1	2.259369
215813_s_at	PTGS1	2.170101
243024_at	ZNF789	2.218144
1559205_s_at	---	2.322666
212335_at	GNS	2.223174

214814_at	YTHDC1	2.925936
213654_at	TAF5L	7.941561
203158_s_at	GLS	3.1727
238067_at	TBC1D8B	2.133999
212489_at	COL5A1	2.724145
1569827_at	ATG7	2.455455
216804_s_at	PDLIM5	3.85573
235567_at	LOC283666	4.658905
231997_at	TBCEL	3.103136
1559266_s_at	C10orf140 /// LOC7304	2.166061
243918_at	---	0.474375
202875_s_at	PBX2	0.386174
203195_s_at	NUP98	0.465961
236696_at	SR140	0.476683
213734_at	WSB2	0.433519
232990_at	FAM104B	0.420888
224688_at	C7orf42	0.422434
201518_at	CBX1	0.439003
205306_x_at	KMO	0.438439
235630_at	---	0.413316
242149_at	C18orf19	0.477656
239825_at	---	0.467688
235785_at	---	0.440938
215078_at	SOD2	0.400335
206640_x_at	GAGE12C /// GAGE12D	0.488935
207086_x_at	CTD-2248C21.2 /// GAG	0.472675
202876_s_at	PBX2	0.378385
222824_at	---	0.440336
205726_at	DIAPH2	0.418068
228254_at	---	0.458027
218481_at	EXOSC5	0.443608
230133_at	RC3H2	0.404405
238841_at	PTPDC1	0.371821
1556060_a_at	KIAA1702	0.318229
227907_at	---	0.379169
203170_at	KIAA0409	0.475654
201760_s_at	WSB2	0.408976
227623_at	---	0.471096
208895_s_at	DDX18	0.493061
235436_at	---	0.474984
1553736_at	CCDC131	0.428395
227864_s_at	FAM125A	0.387908
210417_s_at	PI4KB	0.414628
226558_at	LOC653071	0.434853
218504_at	FAHD2A	0.428429
240440_at	NPL	0.429204
225430_at	GATC	0.466903

1556613_s_at	LOC203107	0.332368
230219_at	---	0.476875
238887_at	---	0.47118
208155_x_at	GAGE1 /// GAGE12G //	0.462258
200841_s_at	EPRS	0.391682
235793_at	---	0.474782
212427_at	KIAA0368	0.329137
234992_x_at	ECT2	0.366644
208235_x_at	GAGE12F /// GAGE12G	0.450435
217869_at	HSD17B12	0.420588
230692_at	LOC157503	0.334593
214816_x_at	C19orf40	0.307471
236503_at	---	0.484709
209092_s_at	GLOD4	0.442349
204349_at	MED7	0.439949
228149_at	FLJ31818	0.438348
219702_at	PLAC1	0.417445
233068_at	---	0.431472
243785_at	---	0.47514
230380_at	THAP2	0.392786
211122_s_at	CXCL11	0.454875
235498_at	LRRRC44	0.41561
241782_at	NEBL	0.483017
213248_at	LOC730101	0.435747
222476_at	CNOT6	0.326667
239484_at	---	0.462104
228569_at	PAPOLA	0.474164
236606_at	---	0.445433
223050_s_at	FBXW5	0.45678
235117_at	CHAC2	0.298649
240214_at	---	0.451974
227285_at	C1orf51	0.312711
235296_at	EIF5A2	0.359083
1564475_s_at	LOC728723	0.35051
209304_x_at	GADD45B	0.469431
210705_s_at	TRIM5	0.454438
232790_at	---	0.363938
213279_at	DHRS1	0.398256
206025_s_at	TNFAIP6	0.358337
227961_at	CTSB	0.380821
242770_at	---	0.456601
203701_s_at	TRMT1	0.452591
227213_at	ADAT2	0.402582
213223_at	RPL28	0.467188
1556340_at	MAPK12	0.373438
241808_at	---	0.441536
218653_at	SLC25A15	0.344254

204669_s_at	RNF24	0.434354
209893_s_at	FUT4	0.393906
226156_at	AKT2	0.427924
238813_at	---	0.448283
243924_at	---	0.459489
51774_s_at	LOC222070	0.447446
236204_at	---	0.380817
203183_s_at	SMARCD1	0.418925
238818_at	KIAA1429	0.428251
208920_at	SRI	0.436975
244641_at	C7orf30	0.260641
225895_at	SYNPO2	0.435971
238633_at	EPC1	0.301433
225971_at	---	0.402747
209161_at	PRPF4	0.463514
219703_at	MNS1	0.46066
207291_at	PRRG4	0.45201
221946_at	C9orf116	0.421882
229375_at	---	0.27317
1559827_at	LOC401074	0.425767
201556_s_at	VAMP2	0.370976
232171_x_at	KLHDC4	0.286717
214231_s_at	KIAA0564	0.446848
219636_s_at	ARMC9	0.393605
226193_x_at	CBWD1	0.358237
227882_at	FKRP	0.446957
200676_s_at	UBE2L3	0.434343
220038_at	SGK3	0.414187
227103_s_at	ECE2	0.442031
1557945_at	TCTE3	0.362223
205673_s_at	ASB9	0.376319
212887_at	SEC23A	0.423579
227098_at	DUSP18	0.342898
238822_at	---	0.304094
218935_at	EHD3	0.408485
214951_at	SLC26A10	0.453055
232256_s_at	LOC401321	0.312793
236772_s_at	---	0.405911
214232_at	---	0.349285
213887_s_at	POLR2E	0.2828
230234_at	---	0.293005
210175_at	C2orf3	0.428207
236817_at	ADAT2	0.282263
218562_s_at	TMEM57	0.291619
203007_x_at	LYPLA1	0.231712
241375_at	---	0.377446
212133_at	NIPA2	0.386976

228153_at	RNF144B	0.360743
212583_at	AQR	0.361211
218362_s_at	DIS3	0.320941
224364_s_at	PPIL3	0.37565
205677_s_at	DLEU1	0.438967
222412_s_at	SSR3	0.353563
232576_at	---	0.413823
220773_s_at	GPHN	0.269455
205844_at	VNN1	0.346755
238190_at	TUFM	0.368483
220472_at	ZCCHC4	0.297793
224860_at	C9orf123	0.280494
229572_at	---	0.347593
207446_at	TLR6	0.410986
220054_at	IL23A	0.415087
228013_at	---	0.399542
229384_at	---	0.379425
238773_at	METT5D1	0.378846
235674_at	KIAA0922	0.347554
1552789_at	TLOC1	0.310435
244627_at	DAK	0.352959
208023_at	TNFRSF4	0.390608
237083_at	---	0.327644
228167_at	KLHL6	0.373245
219626_at	MAP7D3	0.274496
235452_at	---	0.39097
228603_at	---	0.369151
242826_at	---	0.333447
209750_at	NR1D2	0.365311
209315_at	HBS1L	0.435143
204837_at	MTMR9	0.311214
213278_at	MTMR9	0.398183
213998_s_at	DDX17	0.325573
202669_s_at	EFNB2	0.423412
224843_at	SLAIN2	0.420708
204548_at	STAR	0.35194
209281_s_at	ATP2B1	0.353881
229672_at	UQCC	0.347813
227605_at	---	0.353595
218371_s_at	PSPC1	0.350089
217997_at	PHLDA1	0.306369
221944_at	FLJ42627	0.390198
231827_at	---	0.434658
205141_at	ANG	0.310932
213989_x_at	SETD4	0.425338
242264_at	---	0.395727
229014_at	FLJ42709	0.422345



219759_at	ERAP2	0.357487
231730_at	SEPSECS	0.298781
217647_at	---	0.386597
217896_s_at	NIP30	0.426919
225255_at	MRPL35	0.398567
206685_at	HCG4	0.347578
202407_s_at	PRPF31	0.361113
239240_at	---	0.417436
228160_at	LOC400642	0.294963
229466_at	LOC256273	0.400542
1568873_at	ZNF519	0.374869
236700_at	EIF3C	0.384894
220513_at	KHDC1	0.283327
222796_at	PTCD1	0.342663
238469_at	---	0.251913
204252_at	CDK2	0.394848
224822_at	DLC1	0.409731
204329_s_at	ZNF202	0.366005
213805_at	ABHD5	0.357678
222434_at	ENAH	0.350568
204350_s_at	MED7	0.257701
213880_at	LGR5	0.388077
223707_at	RPL27A	0.195421
200613_at	AP2M1	0.271194
209162_s_at	PRPF4	0.224447
210102_at	LOH11CR2A	0.310934
210284_s_at	MAP3K7IP2	0.359177
236090_at	---	0.348283
238729_x_at	LOC646561	0.387335
212192_at	KCTD12	0.273615
233021_at	---	0.337718
213215_at	---	0.186818
225066_at	---	0.40274
244035_at	---	0.256855
203088_at	FBLN5	0.232011
228380_at	---	0.280085
232613_at	PBRM1	0.390016
215116_s_at	DNM1	0.269942
209368_at	EPHX2	0.240663
202512_s_at	ATG5	0.179959
228693_at	CCDC50	0.354839
242540_at	C11orf47	0.27894
230100_x_at	PAK1	0.35941
1555964_at	ARL17 /// ARL17P1	0.261841
226532_at	---	0.365023
238867_at	TMEM182	0.259956
1556414_at	C21orf71	0.312901

1554493_s_at	THADA	0.387241
209702_at	FTO	0.240828
228068_at	C10orf132	0.33574
207201_s_at	SLC22A1	0.308037
213333_at	MDH2	0.247065
239823_at	---	0.20754
203685_at	BCL2	0.302525
227472_at	DDA1	0.364743
209846_s_at	BTN3A2	0.310168
226713_at	CCDC50	0.289395
236095_at	NTRK2	0.211995
226696_at	RBBP9	0.202641
213938_at	ERC2	0.241629
1554671_a_at	SRRM2	0.357799
220418_at	UBASH3A	0.365749
217651_at	---	0.314412
225856_at	---	0.225549
206547_s_at	PPEF1	0.260634
208776_at	PSMD11	0.293645
230178_s_at	---	0.358965
236075_s_at	---	0.231431
206510_at	SIX2	0.232094
222916_s_at	HDLBP	0.173768
1554875_at	C2orf34	0.30377
1558290_a_at	PVT1	0.317535
229588_at	DNAJC10	0.338532
223434_at	GBP3	0.323485
1556696_s_at	FLJ42709	0.33555
228231_at	---	0.318935
1554043_a_at	---	0.2266
223641_at	---	0.260766
219424_at	EBI3	0.304995
217856_at	RBM8A	0.367083
210587_at	INHBE	0.302836
236887_at	KIN	0.293584
229957_at	TMEM91	0.284825
1554248_at	ZNF638	0.313615
241825_at	C2orf60	0.201573
204949_at	ICAM3	0.272818
203996_s_at	C21orf2	0.348915
227747_at	---	0.328235
202388_at	RGS2	0.311434
232569_at	---	0.18515
237802_at	XKR4	0.273344
221878_at	LOC388969	0.245415
201506_at	TGFBI	0.229578
212613_at	BTN3A2	0.333198

206157_at	PTX3	0.222569
220358_at	BATF3	0.283069
214234_s_at	CYP3A5	0.323098
205307_s_at	KMO	0.284922
219056_at	RNASEH2B	0.287305
202859_x_at	IL8	0.197187
205676_at	CYP27B1	0.148071
214157_at	GNAS	0.237859
217790_s_at	SSR3	0.23719
225179_at	UBE2K	0.207458
228310_at	ENAH	0.28707
228548_at	---	0.276779
209889_at	SEC31B	0.274539
227741_at	PTPLB	0.105675
233305_at	NECAB1	0.288439
225109_at	---	0.183198
226081_at	LZIC	0.177132
1552607_at	CXorf52	0.178915
207176_s_at	CD80	0.251837
222881_at	HPSE	0.236879
223503_at	TMEM163	0.302746
1570388_a_at	LOC440896	0.262016
209541_at	IGF1	0.120638