Supplemental Table S1

A. Antibody and drug information

Product Name	Catalog No.	RIID
GSK-J4	Sigma-Aldrich Cat#SML0701	/
CFA	Sigma-Aldrich Cat# F5881	/
TH	Sigma-Aldrich Cat# T1299	AB_477560
JMJD3	Millipore Cat# 07-1533	AB_1587219
NURR1	Santa Cruz Biotechnology Cat# sc-990	AB_2298676
GAPDH	Proteintech Cat# 10494-1-AP	AB_2263076
H3K27me3	Cell Signaling Technology Cat# 9733	AB_2616029
H3	Cell Signaling Technology Cat# 4499	AB_10544537
Anti-rabbit Alexa Fluor™ 546	Thermo Scientific Cat. No. A11035	AB_2534093
Anti-mice Alexa Fluor™ 488	Thermo Scientific Cat. No. A11001	AB_2534069
Anti-rabbit Alexa Fluor™ 488	Thermo Scientific Cat. No. A11008	AB_143165
Anti-mice Alexa Fluor™ 555	Thermo Scientific Cat. No. A21422	AB_2535844
Anti-IgG (H+L chain) (Rabbit) pAb-HRP	MBL Code No.458	/
Anti-lgG (H+L chain)(Mouse) pAb-HRP	MBL Code No.330	/
MES23.5	/	CVCL_J351

B. The parameters for multiple reaction monitoring (MRM)

Compound	Precursor Ion	Product Ion	Fragmentor (V)	Collision Energy (eV)	Polarity	Quan or Qual
Isoproterenol	212.13	195.1	76	2	Pos	Qual
Isoproterenol	212.13	107	76	30	Pos	Quan
HVA	181.05	137.1	66	6	Neg	Quan
5-HT	177.1	160	65	6	Pos	Quan
5-HT	177.1	115	65	34	Pos	Qual
NE	174.1	156.1	118	10	Neg	Quan
NE	174.1	128.1	118	18	Neg	Qual
DA	154.09	137	70	6	Pos	Quan
DA	154.09	91	70	26	Pos	Qual

C. Primers for genotyping and quantitative PCR analysis

Primer name	Forward	Reverse
TH	GTCACGTCCCCAAGGTTCAT	GAGGAGGGTTTTGTACCCC
JMJD3	CCCAGGCCCTGTGAGTAAAG	AGAGGCCAACGATTTGAGCA
UTX	CCTCCATTACCATCCGCCTC	AGAGTCCTGGCATAGGAGCA
GAPDH	TGTGAACGGATTTGGCCGTA	GTCTCGCTCCTGGAAGATGG

Primer name	Forward	Reverse
CRE	TCGATGCAACGAGTGATGAG	TCCATGAGTGAACGAACCTG
JMJD3 loxP	GAGACCCCTGTTTGGTTACCAG	GAGGCAGAACCTGAGCAAGACC

Primer name	Forward	Reverse
th1	GCGACAGTGGATGCAATTAG	CCTCTTAAAGGCCAGGCTGA
th2	GGGGACTTGAAGACATCCAA	CCCTAGACACGACATGAAGACA
th3	TAGGGAGATGCCAAAGGCTA	AGTGTATGTGCTGGCACTGG

th4	GCTCAGCATAAGTCCCCTGT	GTAAGGGCGCACTCAGTGAT

Primer name	Forward	Reverse
Nurr1	GCGGTGGGTCATTGTTTC	GCGCTCCGGTTCATTGTC
Nurr2	GGGCACAGTGGCTTAAAAGT	CTCCTCTGCAAGTTCCAACC
Nurr3	TGAATAAGACACGCGTCAGG	AGCCCCACTGTCCTTTCTTT
Nurr4	CAGTGTCTTAGGGGCCAGAG	GAAGATCAGCTACTCTGCTGGA