

Table S5. Validation and quantification of mRNA and 1 randomly selected lncRNA in maturing neurons. Pearson's correlation coefficient (R_{array}) based on the microarray data, was computed between SLR and days 2, 4, 6, 8 after maturation. Pearson's correlation coefficient (R_{qPCR}) based on qPCR, was computed between fold change and days 2, 4, 6, 8, 14 after maturation. Expression is shown in fold change \pm SD relative to Day 2. Expression of GAPDH was used as a control/housekeeping gene to normalize mRNA and lncRNA expression. Statistically significant differences were tested using the two sample *t-test* (* $p < 0.05$, ** $p < 0.01$). Mean C_T value \pm SD for the no template control (NTC) is indicated.

Gene	mRNA	Microarray R_{array}	qPCR (Fold change \pm SD)				R_{qPCR}	qPCR ($C_T \pm$ SD)
	lncRNA		D4	D6	D8	D14		NTC
Proliferation and differentiation related pathway								
<i>Axin2</i>	NM_015732	-0.83	-1.38 \pm 0.01*	-1.34 \pm 0.01*	-1.16 \pm 0.01	-2.63 \pm 0.17*	-0.88	Undetermined
	ENSMUST00000143435	0.28	1.08 \pm 0.06	1.70 \pm 0.06*	3.28 \pm 1.04*	3.04 \pm 1.52*	0.86	39.3 \pm 0.7
<i>Igfl1r</i>	NM_010513	0.54	-1.75 \pm 0.01**	-2.08 \pm 0.02**	-1.68 \pm 0.02**	-1.24 \pm 0.02**	0.00	Undetermined
	AK040698	-0.97	-1.65 \pm 0.01**	1.08 \pm 0.02*	1.27 \pm 0.13*	-4.77 \pm 0.01**	-0.71	Undetermined
<i>Ikbkb</i>	NM_010546	0.87	-1.27 \pm 0.01*	-1.44 \pm 0.02*	-1.32 \pm 0.02*	-2.34 \pm 0.02**	-0.95	Undetermined
	uc009ldv.1	-0.04	-1.35 \pm 0.15	-1.68 \pm 0.02**	-1.96 \pm 0.02**	-1.90 \pm 0.24**	-0.81	35.6 \pm 0.7
<i>Prkcb</i>	NM_008855	0.95	1.88 \pm 0.07**	2.01 \pm 0.01**	2.99 \pm 0.02**	11.48 \pm 0.20**	0.99	36.8 \pm 0.1
	ENSMUST00000118119	0.94	1.12 \pm 0.01*	1.00 \pm 0.01	-1.01 \pm 0.01	1.90 \pm 0.74*	0.83	Undetermined
<i>Ralgds</i>	NM_009058	-0.64	-1.21 \pm 0.05*	-1.22 \pm 0.01**	-1.02 \pm 0.02	-1.40 \pm 0.01**	-0.68	37.0 \pm 0.1
	uc008iyq.1	-0.73	-1.31 \pm 0.01**	-1.43 \pm 0.01**	-1.58 \pm 0.01**	-1.73 \pm 0.02**	-0.89	33.9 \pm 0.2
Cell adhesion molecules								
<i>Cntn1</i>	NM_001159648	-0.78	1.39 \pm 0.06*	1.76 \pm 0.05**	2.27 \pm 0.03**	2.69 \pm 0.05**	0.93	34.9 \pm 0.1
	AK140484	0.47	-1.45 \pm 0.01*	1.10 \pm 0.01	1.07 \pm 0.02	-1.40 \pm 0.07*	-0.34	Undetermined
<i>Ncam1</i>	NM_010875	0.89	-1.05 \pm 0.06	1.29 \pm 0.01**	1.35 \pm 0.02**	1.44 \pm 0.04**	0.85	Undetermined
	AK156022	-0.41	1.03 \pm 0.03	1.01 \pm 0.02	-1.07 \pm 0.03*	-2.32 \pm 0.01**	-0.90	37.1 \pm 0.1
<i>Negr1</i>	NM_001039094	0.96	1.46 \pm 0.03**	2.60 \pm 0.01**	2.82 \pm 0.02**	2.15 \pm 0.05**	0.62	Undetermined
	uc008rva.1	-0.53	1.09 \pm 0.02*	1.02 \pm 0.02	-1.09 \pm 0.01**	-1.16 \pm 0.04**	-0.85	Undetermined
<i>Nrxn1</i>	NM_020252	0.21	1.17 \pm 0.01**	1.03 \pm 0.02	1.07 \pm 0.01**	1.69 \pm 0.01**	0.86	Undetermined
	uc008dwg.1	-0.48	-1.63 \pm 0.01**	-1.34 \pm 0.03*	-1.55 \pm 0.02**	-1.44 \pm 0.02*	-0.44	Undetermined
Neurotrophin signalling pathway								
<i>Ntrk2</i>	NM_008745	0.96	1.16 \pm 0.08	2.06 \pm 0.01**	3.82 \pm 0.01**	4.90 \pm 1.93**	0.93	Undetermined
	AK021278	-0.87	-1.50 \pm 0.12*	-1.40 \pm 0.07*	-1.46 \pm 0.04*	-1.70 \pm 0.12*	-0.78	37.1 \pm 0.3
<i>Sh2b3</i>	NM_008507	0.84	-1.35 \pm 0.02**	-1.14 \pm 0.06	1.00 \pm 0.06	1.44 \pm 0.03**	0.79	37.0 \pm 0.1
	AK007127	-0.53	-1.58 \pm 0.03**	1.25 \pm 0.01**	1.73 \pm 0.08**	-6.64 \pm 0.01**	-0.68	37.0 \pm 0.2