Supplementary Table 1. Numbers of cells positive to excitatory and inhibitory neuron markers.

Target	*Arid1b*$^{+/+}$	*Arid1b*$^{+/-}$	P value
P28			
CUX1	504.2 ± 50.9	468.8 ± 8.2	-
TBR1	1331.5 ± 117.3	1326.5 ± 107.7	-
NeuN	1232.4 ± 17.6	1096.0 ± 75.3	-
Olig2	287.9 ± 10.7	300.6 ± 11.0	-
Somatostatin	61.1 ± 2.4	56.3 ± 6.8	-
Calbindin	62.2 ± 3.9	51.8 ± 2.0	-
Calretinin	76.0 ± 3.6	74.8 ± 3.0	-
GABA	152.2 ± 5.4	111.2 ± 3.2	***p<0.001
Parvalbumin	75.3 ± 3.5	54.6 ± 3.0	***p<0.001
P91			
CUX1	470.5 ± 13.0	435.2 ± 9.9	-
TBR1	1268.6 ± 53.3	1218.4 ±75.1	-
NeuN	1167.9 ± 37.1	1168.0 ± 55.0	-
Olig2	206.8 ± 2.5	188.0 ± 8.2	-
Somatostatin	63.3 ± 4.4	59.2 ± 5.8	-
Calbindin	62.2 ± 5.8	51.6 ± 4.4	-
Calretinin	77.0 ± 4.2	71.2 ± 6.6	-
GABA	122.1 ± 9.8	76.2 ± 6.8	***p<0.001
Parvalbumin	82.9 ± 4.8	52.4 ± 2.7	***p<0.001

Supplementary Table 2. Genomic sequence analysis of *Arid1b* knockout alleles

	Sequence
Arid1b conditional allele (floxed)	TCCAGCCTTACTGAGCTGACCACCTAGGAGAACTGTCACACCAGCAGCCTGTCTCTCATTTCT GGGCATCCAGGCCTGTAAGCACAGCCACAAACTCCTTACCCATTACAGTGTCCTCTCCCATCT TGCCTGCCTTCTCTTCAGTTGCCTTGTTCTCCCCTGAGGAGCATAGCCTTAAGCAGTTACTACT CCAGACCTCTGTTCTGTGGGTTTTTTCAAGTAGAGCTTCTAGTAACTTCCTCTGAGGGTGTTGT AGTCAAATTAGATGGTATTAACAGTGCAGAATTGCTAAGGCGCATA(Intron4)ACGATACCACGAT ATCAACAAGTTTGTACAAAAAAGCAGGCTGGCGCCGGAACCGAAGTTCCTATTCCGAAGTTCC TATTCTCTAGAAAGTATAGGAACTTC(FRT)GTCGAGATAACTTCGTATAGCATACATTATACGAAG TTAT(loxP)GTCGAGATATCTAGACCCAGCTTTCTTGTACAAAGTGGTTGATATCTCTATAGTCGC AGTAGGCGGGCAAATGTACTATTTTATTATATTGCTTAAAGATGAGAGAATTTTTCATCACAAAAT TCAGTTATAATTTTGACCATTATTATATTACAACATCCCAGCTTGAATTTCCTTATGACAGTTTCCC CAAGCCTATAGTTGCTCAGTTCAGTGAAGTCTTCTTGTAGGACCACTTCTTATTCCATCCCAGT GGTAACTTGCTAAGCAGAGTGCTGCCTGATACAGCACTTACATAGGCATATAGCTGGGTGCTG GTGGAGGAAGGGGAACCGTCAAGCCATTTGTGAGTGCAAGGTGCAGCTTGCCTCATGTTTAA TTGATACCAAGGCCTTCTGTGTGAGTTTGCTGGAGTCTGGTGAGAAGTGGCCACTCTGAGTAG ACTCCACTAGTGTGTAAGAATCTTGGTCTTACCCATTTGCACAGTCTCTAAAGGAGTGGCACTG TGGCTTTCAAACCATGCTTCCCGTGCTTGCTGCCTACGGCCATGTGTATGAACACCCGCTTTC TCTTTCTTTCTCAGGACCTGTCTGGCTCCATCGATGACCTCCCCACGGGAACAGAAGCAACTC TGAGCTCAGCAGTCAGTGCATCCGGGTCTACAAGCAGCCAGGGAGATCAGAGCAACCCAGC GCAGTCTCCTTTCTCCCCACATGCATCACCTCACCTCTCCAGCATCCCTGGAGGGCCGTCAC CTTCTCCTGTTGGCTCTCCTGTGGGAAGCAACCAATCGAGGTCTGGTCCGATCTCCCCTGCG AGTATTCCAGGTACTGCCATCTCTCCTGGTCCCACCCACCCTCATTACCCCCAACCCCCAGCC CCATGT(exon5)GAAGACAGGTCTGGCTTAGCAGCGGCTCTCAAACTCTGCCTTCCTAGGCACT CTGTTTTACTCCTTAAAACCATGGGCATGTTTACATATTAGGGATATAACAGAGTTCCCTGCCAA ATATACAAGAGTCCCAGTTTATAAAGAGTCAACCAATGAATGATAGATAAATGCCCAGCTACTTTA GATGAGACAGCCCAGAACTGTCTAACTACTTTTAAAAGTTCAGTTTTCCAGAAAGCAACCCCTT TAGTGTCTCCTGTCTTGTAATCCCCCTGTAGTAAGGATCCTCCATCAGAGATGGCGCAACGCAA TTAATGATAACTTCGTATAGCATACATTATACGAAGTTAT(loxP)GGTCTGAGCTCGCCATCAGTTC AATAACTTGGGGATTATTTTCTGACATGTTTTACAGTTGATGCTCATCTATGATCACAGTCACACA CCGATTGTGCCCAACTACAGTCCAAAGTGTTGTGCTGATACAAGCTCAAACTTTGTT(intron5)
Tissue-specific Arid1b knockout allele (after Cre cross)	TTGTAGTCAAATTAGATGGTATTAACAGTGCAGAATTGCTAAGGCGCATA(intron4)ACGATACC ACGATATCAACAAGTTTGTACAAAAAAGCAGGCTGGCGCCGGAACCGAAGTTCCTATTCCGA AGTTCCTATTCTCTAGAAAGTATAGGAACTTC(FRT)GTCGAGATAACTTCGTATAGCATACATT ATACGAAGTTAT(loxP)GGTCTGAGCTCGCCATCAGTTCAATAACTTGGGGATTATTTTCTGACA TGTTTTACAGTTGATGCTCATCTATGATCACAGTCACACACCGATTGTGCCCAACTACAGTCC AAAGTGTTGTGCTGATACAAGCTCAAACTTTGTT(intron5)
Arid1b KO allele	GAAGGCACATGGCTGAATATCGACGGTTTCCATATGGGGATTGGTGGCGACGACTCCTGGAG CCCGTCAGTATCGGCGGAATTCCAGCTGAGCGCCGGTCGCTACCATTACCAGTTGGTCTGGT GTCAAAAATAAT(LacZ)AATAACCGGGCAGGGGGGATCTAAGCTCTAGATAAGTAATGATCATA ATCAGCCATATCACATCTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCCACACCTCCCCCTGA ACC(SV40polyA)TGAAACATAAAATGAATGCAATTGTTGTTGTTAACTTGTTTATTGCAGCTTAT AATGGTTACAAATAAAGCAATAGCATCACAAATTTCACAAATAAAGCATTTTTTTCACTGCATTC TAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTATCATGTCTGGATCCGGAATAACTTCGTA TAGCATACATTATACGAAGTTAT(loxP)GGTCTGAGCTCGCCATCAGTTCAATAACTTGGGGATT ATTTTCTGACATGTTTTACAGTTGATGCTCATCTATGATCACAGTCACACACCGATTGTGCCCA ACTACAGTCCAAAGTGTTGTGCTGATACAAGCTCAAACTTTGTT(intron5)

Supplementary Table 3. Summary of behavioral statistical data

Test	Duration	Measurement	Number of animals		Values	Statistical Test
Morris water maze	1 min	Escape latency (sec)	*Arid1b*$^{+/+}$ = 8 *Arid1b*$^{+/-}$ = 10	Day1	*Arid1b*$^{+/+}$ = 57.78 ± 1.17 *Arid1b*$^{+/-}$ = 57.93 ± 1.15	Two-tailed Student's *t* test
				Day2	*Arid1b*$^{+/+}$ = 47.19 ± 2.94 *Arid1b*$^{+/-}$ = 46.00 ± 2.85	
				Day3	*Arid1b*$^{+/+}$ = 36.47 ± 3.54 *Arid1b*$^{+/-}$ = 39.88 ± 3.33	
				Day4	*Arid1b*$^{+/+}$ = 24.22 ± 3.65 *Arid1b*$^{+/-}$ = 34.14 ± 4.33	
				Day5	*Arid1b*$^{+/+}$ = 13.97 ± 2.03 *Arid1b*$^{+/-}$ = 34.28 ± 3.26	
				Day6	*Arid1b*$^{+/+}$ = 14.53 ± 1.84 *Arid1b*$^{+/-}$ = 36.25 ± 3.28	
				Day7	*Arid1b*$^{+/+}$ = 14.41 ± 2.46 *Arid1b*$^{+/-}$ = 34.25 ± 3.55	
				Day8	*Arid1b*$^{+/+}$ = 9.78 ± 1.48 *Arid1b*$^{+/-}$ = 28.38 ± 3.71	
				Day9	*Arid1b*$^{+/+}$ = 10.34 ± 1.36 *Arid1b*$^{+/-}$ = 29.75 ± 3.35	
				Day10	*Arid1b*$^{+/+}$ = 8.16 ± 1.14 *Arid1b*$^{+/-}$ = 24.40 ± 3.57	
		Platform crossing			*Arid1b*$^{+/+}$ = 6.13 ± 0.88 *Arid1b*$^{+/-}$ = 2.00 ± 0.69	
		Distance moved (cm)			*Arid1b*$^{+/+}$ = 939.71 ± 56.11 *Arid1b*$^{+/-}$ = 949.14 ± 71.96	
		Velocity (cm/s)			*Arid1b*$^{+/+}$ = 22.64 ± 2.28 *Arid1b*$^{+/-}$ = 19.14 ± 1.70	
T-maze	-	Success rate (%)	*Arid1b*$^{+/+}$ = 6 *Arid1b*$^{+/-}$ = 6		*Arid1b*$^{+/+}$ = 95.67 ± 1.89 *Arid1b*$^{+/-}$ = 46.17 ± 17.51	Two-tailed Student's *t* test
Novel object recognition	10 min	Recognition index (%)	*Arid1b*$^{+/+}$ = 9 *Arid1b*$^{+/-}$ = 8		*Arid1b*$^{+/+}$; Familiar = 36.81 ± 3.70 *Arid1b*$^{+/+}$; Novel = 63.19 ± 3.70 *Arid1b*$^{+/-}$; Familiar = 52.68 ± 4.51 *Arid1b*$^{+/-}$; Novel = 47.32 ± 4.51	Two-tailed Student's *t* test
Rotarod	5 min	Latency to fall (sec)	*Arid1b*$^{+/+}$ = 6 *Arid1b*$^{+/-}$ = 6	Day1	*Arid1b*$^{+/+}$ = 157.72 ± 17.72 *Arid1b*$^{+/-}$= 170.50 ± 17.74	Two-tailed Student's *t* test

				Day2	*Arid1b*$^{+/+}$ = 201.78 ± 20.73 *Arid1b*$^{+/-}$ = 212.17 ± 21.25	
				Day3	*Arid1b*$^{+/+}$ = 248.33 ± 13.79 *Arid1b*$^{+/-}$ = 211.94 ± 16.35	
				Day4	*Arid1b*$^{+/+}$ = 240.94 ± 11.66 *Arid1b*$^{+/-}$ = 195.06 ± 15.57	
				Day6	*Arid1b*$^{+/+}$ = 243.00 ± 11.64 *Arid1b*$^{+/-}$ = 201.29 ± 14.30	
				Day8	*Arid1b*$^{+/+}$ = 241.82 ± 12.32 *Arid1b*$^{+/-}$ = 220.76 ± 16.23	
				Day10	*Arid1b*$^{+/+}$ = 244.59 ± 15.52 *Arid1b*$^{+/-}$ = 220.53 ± 12.29	
				Day13	*Arid1b*$^{+/+}$ = 258.06 ± 15.42 *Arid1b*$^{+/-}$ = 211.12 ± 15.13	
				Day16	*Arid1b*$^{+/+}$ = 242.24 ± 15.37 *Arid1b*$^{+/-}$ = 215.18 ± 9.45	
Social Behavior	10 min	Time spent in chamber (sec)	*Arid1b*$^{+/+}$ = 11 *Arid1b*$^{+/-}$ = 12	Sociability	*Arid1b*$^{+/+}$; Empty = 153.92 ± 21.45 *Arid1b*$^{+/+}$; Stranger I = 362.87 ± 21.31	Two-tailed Student's *t* test
					Arid1b$^{+/-}$; Empty = 224.80 ± 34.46 *Arid1b*$^{+/-}$; Stranger I = 298.06 ± 36.31	
				Social novelty	*Arid1b*$^{+/+}$; Stranger I = 173.95 ± 20.96 *Arid1b*$^{+/+}$; Stranger II = 337.99 ± 23.88	
					Arid1b$^{+/-}$; Stranger I = 316.39 ± 22.38 *Arid1b*$^{+/-}$; Stranger II = 195.89 ± 21.55	
Social interaction	10 min	Number of events (n)	*Arid1b*$^{+/+}$ = 6 *Arid1b*$^{+/-}$ = 6	General sniffing	*Arid1b*$^{+/+}$ = 30.60 ± 3.87 *Arid1b*$^{+/-}$ = 16.60 ± 2.84	Two-tailed Student's *t* test
				Anogenital sniffing	*Arid1b*$^{+/+}$ = 20.40 ± 2.73 *Arid1b*$^{+/-}$ = 9.80 ± 1.77	
				Following	*Arid1b*$^{+/+}$ = 6.00 ± 2,43 *Arid1b*$^{+/-}$ = 1.80 ± 0.66	

				Mounting	*Arid1b*$^{+/+}$ = 1.00 ± 0.77 *Arid1b*$^{+/-}$ = 0.20 ± 0.20	
				Fighting	*Arid1b*$^{+/+}$ = 0.20 ± 0.20 *Arid1b*$^{+/-}$ = 0.20 ± 0.20	
		Total sniffing time (sec)			*Arid1b*$^{+/+}$ = 76.54 ± 7.21 *Arid1b*$^{+/-}$ = 40.09 ± 5.96	
Spontaneous Self-Grooming	30 min	Grooming time (%)	*Arid1b*$^{+/+}$ = 10 *Arid1b*$^{+/-}$ = 10		*Arid1b*$^{+/+}$ = 9.15 ± 1.71 *Arid1b*$^{+/-}$ = 57.08 ± 5.28	Two-tailed Student's *t* test
Elevated Plus Maze	5 min	Time spent on open arm (sec)	*Arid1b*$^{+/+}$ = 13 *Arid1b*$^{+/-}$ = 12		*Arid1b*$^{+/+}$ = 10.45 ± 2.31 *Arid1b*$^{+/-}$ = 2.18 ± 0.85	Two-tailed Student's *t* test
Open field	5 min	Time in center (sec)	*Arid1b*$^{+/+}$ = 16 *Arid1b*$^{+/-}$ = 20		*Arid1b*$^{+/+}$ = 33.47 ± 3.98 *Arid1b*$^{+/-}$ = 7.11 ± 0.85	Two-tailed Student's *t* test
		Number of entries into center			*Arid1b*$^{+/+}$ = 18.06 ± 2.28 *Arid1b*$^{+/-}$ = 5.85 ± 1.46	
Forced swim	5 min	Immobility time (sec)	*Arid1b*$^{+/+}$ = 12 *Arid1b*$^{+/-}$ = 13		*Arid1b*$^{+/+}$ = 55.64 ± 7.30 *Arid1b*$^{+/-}$ = 179.98 ± 11.14	Two-tailed Student's *t* test
Tail suspension	5 min	Immobility time (sec)	*Arid1b*$^{+/+}$ = 12 *Arid1b*$^{+/-}$ = 13		*Arid1b*$^{+/+}$ = 77.39 ± 6.86 *Arid1b*$^{+/-}$ = 154.78 ± 11.86	Two-tailed Student's *t* test
Novel object recognition	10 min	Recognition index (%)	*Arid1b*$^{+/+}$ = 8 *Clonazepam-treated* *Arid1b*$^{+/+}$= 10 *Arid1b*$^{+/-}$ = 7 *Clonazepam-treated* *Arid1b*$^{+/-}$= 10		*Arid1b*$^{+/+}$; Familiar = 31.30 ± 2.81 *Arid1b*$^{+/+}$; Novel = 68.70 ± 2.81	Two-tailed Student's *t* test
					Clonazepam-treated Arid1b$^{+/+}$; Familiar = 29.72 ± 2.72 *Clonazepam-treated Arid1b*$^{+/+}$; Novel = 70.44 ± 3.05	
					Arid1b$^{+/-}$; Familiar = 50.09 ± 6.00 *Arid1b*$^{+/-}$; Novel = 54.52 ± 2.83	
					Clonazepam-treated Arid1b$^{+/-}$; Familiar = 30.87 ± 3.55 *Clonazepam-treated Arid1b*$^{+/-}$; Novel = 69.13 ± 3.55	
Social Behavior	10 min	Time spent in chamber (sec)	*Arid1b*$^{+/+}$ = 9 *Clonazepam-treated* *Arid1b*$^{+/+}$= 9 *Arid1b*$^{+/-}$ = 7 *Clonazepam-treated* *Arid1b*$^{+/-}$= 9	Sociability	*Arid1b*$^{+/+}$; Empty = 188.76 ± 13.47 *Arid1b*$^{+/+}$; Stranger I = 310.91 ± 14.90	Two-tailed Student's *t* test
					Clonazepam-treated Arid1b$^{+/+}$; Empty = 133.69 ± 16.40 *Clonazepam-treated Arid1b*$^{+/+}$; Stranger I = 244.97 ± 7.63	
					Arid1b$^{+/-}$; Empty = 235.67 ± 34.60 *Arid1b*$^{+/-}$; Stranger I = 214.74 ± 39.46	
					Clonazepam-treated Arid1b$^{+/-}$; Empty = 208.78 ± 17.96 *Clonazepam-treated Arid1b*$^{+/-}$; Stranger I = 251.99 ± 15.02	
				Social	*Arid1b*$^{+/+}$; Stranger I = 178.99 ± 16.85 *Arid1b*$^{+/+}$; Stranger II = 322.63 ± 15.05	

				Clonazepam-treated Arid1b$^{+/+}$; Stranger I = 121.22 ± 20.19 *Clonazepam-treated Arid1b*$^{+/+}$; Stranger II = 316.79 ± 44.64	
				Arid1b$^{+/-}$; Stranger I = 270.48 ± 11.70 *Arid1b*$^{+/-}$; Stranger II = 190.16 ± 12.69	
				Clonazepam-treated Arid1b$^{+/-}$; Stranger I = 171.64 ± 20.85 *Clonazepam-treated Arid1b*$^{+/-}$; Stranger II = 342.24 ± 25.96	
Open field	5 min	Time in center (sec)	*Arid1b*$^{+/+}$ = 9 *Clonazepam-treated Arid1b*$^{+/+}$= 8 *Arid1b*$^{+/-}$ = 9 *Clonazepam-treated Arid1b*$^{+/-}$= 6	*Arid1b*$^{+/+}$ = 52.65 ± 6.85 *Clonazepam-treated Arid1b*$^{+/+}$ = 50.81 ± 10.99 *Arid1b*$^{+/-}$ = 6.36 ± 1.01 *Clonazepam-treated Arid1b*$^{+/-}$ = 45.62 ± 9.68	one-way ANOVA with Bonferonni correction test
		Number of entries into center		*Arid1b*$^{+/+}$ = 23.86 ± 3.31 *Clonazepam-treated Arid1b*$^{+/+}$ = 20.88 ± 4.02 *Arid1b*$^{+/-}$ = 4.22 ± 0.92 *Clonazepam-treated Arid1b*$^{+/-}$ = 17.67 ± 3.60	
Forced swim	5 min	Immobility time (sec)	*Arid1b*$^{+/+}$ = 6 *Clonazepam-treated Arid1b*$^{+/+}$= 6 *Arid1b*$^{+/-}$ = 6 *Clonazepam-treated Arid1b*$^{+/-}$= 6	*Arid1b*$^{+/+}$ = 58.67 ± 19.11 *Clonazepam-treated Arid1b*$^{+/+}$ = 57.05 ± 13.55 *Arid1b*$^{+/-}$ = 160.18 ± 21.15 *Clonazepam-treated Arid1b*$^{+/-}$ = 107.02 ± 30.48	one-way ANOVA with Bonferonni correction test
Tail suspension	5 min	Immobility time (sec)	*Arid1b*$^{+/+}$ = 6 *Clonazepam-treated Arid1b*$^{+/+}$= 6 *Arid1b*$^{+/-}$ = 6 *Clonazepam-treated Arid1b*$^{+/-}$= 6	*Arid1b*$^{+/+}$ = 74.36 ± 19.97 *Clonazepam-treated Arid1b*$^{+/-}$ = 100.58 ± 20.64 *Arid1b*$^{+/-}$ = 197.01 ± 11.36 *Clonazepam-treated Arid1b*$^{+/-}$ = 165.09 ± 18.57	one-way ANOVA with Bonferonni correction test
Novel object recognition	10 min	Recognition index (%)	*Arid1b*$^{+/+}$*;Dlx5/6-Cre-IRES-EGFP* = 6 *Arid1b*$^{Lox/+}$*;Dlx5/6-Cre-IRES-EGFP* = 6	*Arid1b*$^{+/+}$; Familiar = 30.51 ± 3.64 *Arid1b*$^{+/+}$; Novel = 57.99 ± 4.09	Two-tailed Student's *t* test
				Arid1b$^{+/-}$; Familiar = 41.96 ± 2.12 *Arid1b*$^{+/-}$; Novel = 44.35± 2.12	
Social Behavior	10 min	Time spent in chamber (sec)	*Arid1b*$^{+/+}$*;Dlx5/6-Cre-IRES-EGFP* = 6 *Arid1b*$^{Lox/+}$*;Dlx5/6-Cre-IRES-EGFP* = 7	Sociability: *Arid1b*$^{+/+}$*;Dlx5/6-Cre*; Empty = 159.93 ± 19.51 *Arid1b*$^{+/+}$*;Dlx5/6-Cre*; Stranger I = 356.68 ± 21.87	Two-tailed Student's *t* test
				Sociability: *Arid1b*$^{Lox/+}$*;Dlx5/6-Cre*; Empty = 248.52 ± 23.18 *Arid1b*$^{Lox/+}$*;Dlx5/6-Cre*; Stranger I = 248.01 ± 18.05	
				Social novelty: *Arid1b*$^{+/+}$*;Dlx5/6-Cre*; Stranger I = 219.91 ± 17.78 *Arid1b*$^{+/+}$*;Dlx5/6-Cre*; Stranger II = 312.37 ± 13.04	
				Social novelty: *Arid1b*$^{Lox/+}$*;Dlx5/6-Cre*; Stranger I = 329.73 ± 43.07 *Arid1b*$^{Lox/+}$*;Dlx5/6-Cre*; Stranger II = 252.87 ± 18.02	
Open field	5 min	Time in center (sec)	*Arid1b*$^{+/+}$*;Dlx5/6-Cre-IRES-EGFP* = 11	*Arid1b*$^{+/+}$*;Dlx5/6-Cre* = 17.23 ± 1.78 *Arid1b*$^{Lox/+}$*;Dlx5/6-Cre* = 9.38 ± 0.91	Two-tailed Student's *t* test
		Number of		*Arid1b*$^{+/+}$*;Dlx5/6-Cre* = 16.79 ± 2.43	

		entries into center	*Arid1b*$^{Lox/+}$*;Dlx5/6-Cre-IRES-EGFP* = 11	*Arid1b*$^{Lox/+}$*;Dlx5/6-Cre* = 9.73 ± 1.44	
Spontaneous Self-Grooming	30 min	Grooming time (%)	*Arid1b*$^{+/+}$*;Dlx5/6-Cre-IRES-EGFP* = 5 *Arid1b*$^{Lox/+}$*;Dlx5/6-Cre-IRES-EGFP* = 5	*Arid1b*$^{+/+}$*;Dlx5/6-Cre-IRES-EGFP* = 9.67 ± 1.08 *Arid1b*$^{Lox/+}$*;Dlx5/6-Cre-IRES-EGFP* = 55.23 ± 2.77	Two-tailed Student's *t* test
			Arid1b$^{+/+}$*;Nkx2.1-Cre* = 5 *Arid1b*$^{Lox/+}$*; Nkx2.1-Cre* = 5	*Arid1b*$^{+/+}$*;Nkx2.1-Cre* = 10.86 ± 2.21 *Arid1b*$^{Lox/+}$*; Nkx2.1-Cre* = 22.37 ± 3.15	

Supplementary Table 4. Primer sequences for real-time PCR

Gene	Primer sequence (5`→ 3`)	Accession No.
Arid1b	F: tccctggaagatgattctgg	NM_001085355
	R: aacttactggcctgctttgg	
Gad1	F: tggagctggctgattacctc	NM_008077
	R: ccatggttgttcctgactcc	
Gad2	F: ccgagaaggctatgaaatgg	NM_008078
	R: cttgtcccctaagggttggt	
Gepn	F: ttgcactaccagggaatcct	NM_145965
	R: tcttggtgatgccaagtcag	
Arhgef9	F: caaggaaacggaagaagtgc	NM_001033329
	R: gggcagagttgacacctttc	
Slc17a7	F: acactgtctgggatggtgtg	NM_182993
	R: gccaacaaagccacacttct	
Dlg4	F: ccgacaagtttggatcctgt	NM_001109752
	R: tctgctacctctcgcacaga	
Gabra1	F: gtggttccagaaaagccaaa	NM_010250
	R: ggttttcttgggttctggtg	
Gabrb2	F: cccttctggaatacgctttg	NM_008070
	R: cccattactgcttcggatgt	
Gabrg2	F: aacaatgccacacaccttca	NM_177408
	R: gaacaagcaaaaggcggtag	
Cbp	F: gcagcagatgaagcaacaaa	NM_001025432
	R: gaatgtggaggttgggattg	
Ep300	F: ctccacaccatgtttctcca	NM_177821
	R: gtctgcattatcgctgctca	
Pcaf	F: taaggttccccatggatctg	NM_001190846
	R: tcaatcaaccctgcttcctt	
Kat5	F: ccaaggaaaaggaatccaca	NM_001199247
	R: caagatggtttgggaccagt	
Hdac1	F: tccatctgctcctctgacaa	NM_008228
	R: gcttctggcttctcctcctt	
Hdac2	F: acggatagcttgcgatgaag	NM_008229
	R: ttggggtctgttttctcacc	
Hdac3	F: cagatccgccagacaatctt	NM_010411
	R: tccttgtcgttgtcatggtc	

Hdac4	F: agtgatggacatccacagca	NM_207225
	R: agtggtggttcctcctccat	
Histone H1	F: catcaccaccaaggtgtcag	NM_030609
	R: gggcttttggctaccttctt	
Histone H2A	F: acgaggagctcaacaagctg	NM_175660
	R: ttacttccccttggccttgt	
Histone H3	F: actggaggggtgaagaaacc	NM_008210
	R: ataggcctcacttgcctcct	
Histone H4	F: aacatccagggcattaccaa	NM_175652
	R: accacgtccatagccgtaac	
Parvalbumin	F: gggcctgaagaaaaagaacc	NM_013645
	R: ttcttcaaccccaatcttgc	
Ntrk2	F: tggtgcattccattcactgt	NM_008745
	R: cttggccatcagggtgtagt	
Cyclin D1	F: tcctctccaaaatgccagag	NM_007631
	R: gcaggagaggaagttgttgg	
c-Myc	F: acacggaggaaaacgacaag	NM_001177352
	R: agaggtgagcttgtgctcgt	
n-Myc	F: gttccagcaaaagcgaagag	NM_008709
	R: ggtggccttttcaagatga	
Creb	F: tcagccgggtactaccattc	NM_001037726
	R: ttcagcaggctgtgtaggaa	
Lef1	F: aggagcccaaaagacctcat	NM_001276402
	R: gctgtctctctttccgtgct	
Tcf3	F: cgacatcaatgaggccttta	NM_001164147
	R: ctgctttggggttcaggtt	
Tcf4	F: accaagctcctgattctcca	NM_001083967
	R: catctgtcccatgtgattcg	
Tcf7	F: atgagagccaaggtcattgc	NM_001313981
	R: gaccgcctcttcttctttcc	
Pttg1	F: agttttgacctgcctgagga	NM_001131054
	R: tcaacatccagagtggagagg	
Fgf18	F: actacacggccctgatgtct	NM_008005
	R: cgcttggtgactgtggtgta	
Ctnnb1	F: acgcagctgctgtcctattc	NM_001165902

	R: aagaacggtagctgggatca	
Wnt2b	F: cacccggactgatcttgtct	NM_009520
	R: ggaatttgcactcacactgg	
Wnt3	F: acgagaactcccccaacttt	NM_009521
	R: gacatagcagcaccagtgga	
Wnt3a	F: acccaacttctgcgaaccta	NM_009522
	R: ctgacgtagcagcaccaatg	
Wnt5a	F: tggtctacatcgaccccagt	NM_001256224
	R: agcagcaccagtgaaacttg	
Wnt5b	F: actgcctgcgtaatgagacc	NM_001271757
	R: cacaacctcggtgcattttt	
Wnt7b	F: acgcagctaccagaagccta	NM_001163633
	R: tgccacaccttggtgtactg	
Wnt8b	F: actgcctggagaacaagacc	NM_011720
	R: cgcagcaccagtgaaactt	
Wnt9b	F: gggacctggtctacatggaa	NM_011719
	R: gacagtggcaggagaaaacc	
Gapdh	F: aaggtcatcccagagctgaa	NM_008084
	R: aggagacaacctggtcctca	
Histone H3 CDS	F: gaattcatggctcgtacaaagcagactg	NM_008210
	R: ggatccttaagcacgttctccgcg	
Syt2	F: aaagtccaggtggtcgtcac	NM_009307
	R: ttcttgcccagaagagcatc	
Ppargc1a	F: gaaaggctcaagagggatga	NM_008904
	R: acggtgcattcctcaatttc	
Parvalbumin promoter	F: cccctgtctcattgtgatcc	
+10265~+10444	R: tcactgggcctcagtttaca	
Parvalbumin promoter	F: catccaaggtaagcggtagc	
+7~+199	R: acagctgaggtccatccttg	
Parvalbumin promoter	F: caaaatagccagggctgtaga	
-103~+77	R: gtccttttcaattggcctga	
Parvalbumin promoter	F: ggatgggggtgaatgtgata	
-206~-16	R: tacagaaaagctgggctggt	
Parvalbumin promoter	F: ttcctcaaggagtgctccac	
-1889~-1645	R: ccaggactttgcgttgactt	
Ntrk2 promoter	F: ggtagcgcagttcctaatgc	
-177~+14	R: atctgagcctcctctcacca	
Ntrk2 promoter	F: aagaacattggcagcacaac	

-646~+462	R: agcaaaaaccagcaggtcac
Slc17a7 promoter	F: aaagagcttggaacgtgcag
-272~-74	R: cttccaacaggctacctgga
Dlg4 promoter	F: aacccctttaccccacgctat
-301~-112	R: tgggaaaggagctagaagca
Viaat promoter	F: ggcagagacacaaacagacg
-284~-95	R: cacaaggagggaggagttca
Gad1 promoter	F: tagacccctttgcctcttgtg
-269~-70	R: ggcgattccagaaggttttc
Syt2 promoter	F: cacttcggagaggagttgga
-5~+194	R: gccaggatggagaaactttg
Syt2 promoter	F: gggtctcctcccctcact
-115~+10	R: ctcctctccgaagtgccttt
Ppargc1a promoter	F: tgtcatgtgactggggactg
-61~+138	R: ccccagctcacctctatgtc
Ppargc1a promoter	F: ccttggagtgacgtcaggag
-152~+28	R: cacacagcacacactcatgc
Gapdh promoter	F: tcaggtaccgaggagggata
	R: cgcttgaaaaggagattgct