

Supporting Information

Meechan et al. 10.1073/pnas.1211507109

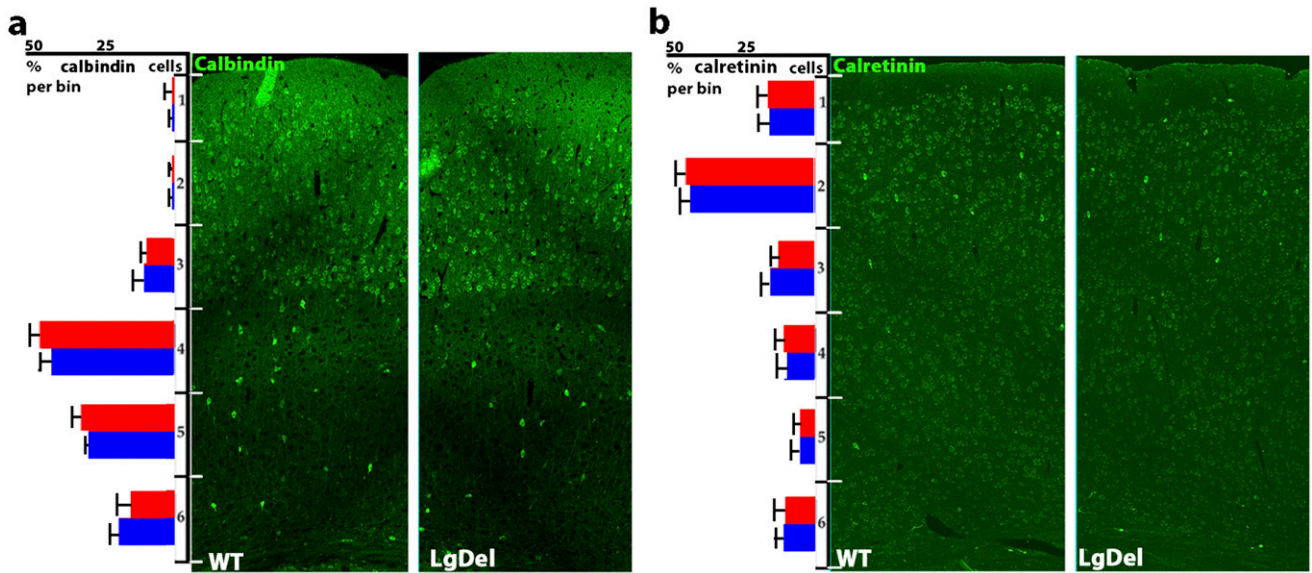


Fig. S1. Assessment of calbindin and calretinin interneuron distribution in postnatal day 21 (P21) cortex. Counting boxes (600- μ m wide, divided into equidistant bins) spanning the cortex between the pial surface and the white matter tract were analyzed in lateral, medial, and dorsal locations in coronal P21 brain sections. No significant differences were observed in the number or distribution of calbindin (A) or calretinin (B) interneurons between *Large Deletion* (*LgDel*) and WT samples. (Medial probe location is shown.)

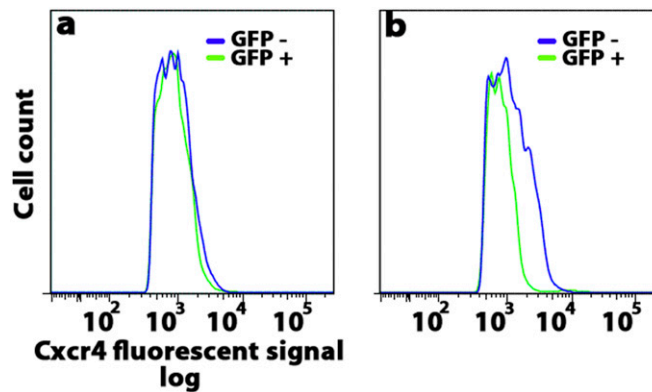
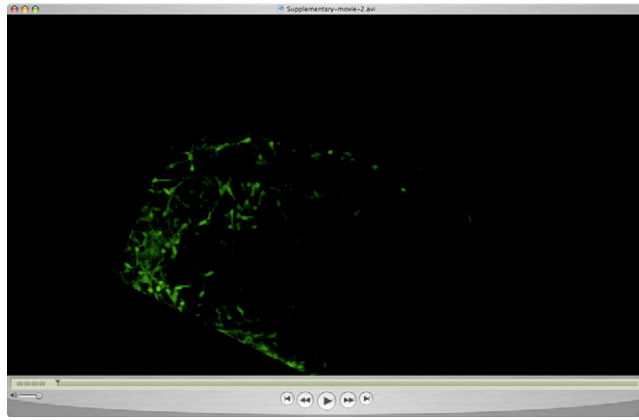


Fig. S2. Cell-surface labeling of Cxcr4 protein by fluorescently conjugated anti-Cxcr4 antibody was measured in dissociated embryonic day 14.5 (E14.5) cortical cells using flow cytometry. (A) A representative flow cytometry plot showing Cxcr4 cell-surface fluorescent signal of *Dlx5/6*-CIE-positive (green plot) and *Dlx5/6*-CIE-negative (blue plot) cortical cells dissociated from the same WT embryo. (B) A representative flow cytometry plot showing Cxcr4 cell-surface fluorescent signal of *Dlx5/6*-CIE-positive and -negative cortical cells from a WT embryo that contains one floxed *Cxcr4* allele. Cxcr4 fluorescent signal is reduced only in cells that are *Dlx5/6*-CIE-positive (GFP⁺ and Cre recombinase-positive), indicating specific and successful excision of the *Cxcr4* allele only in these cells.

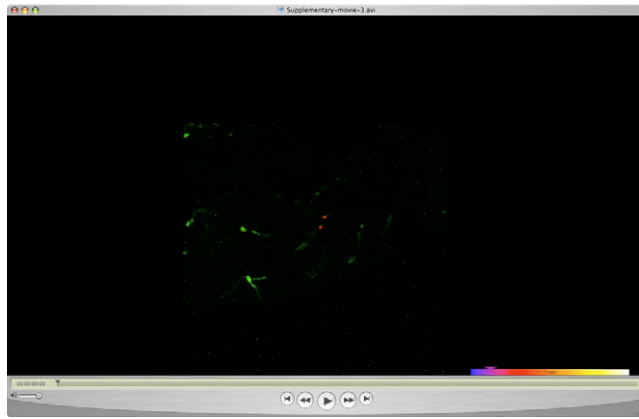
Table S1. Microarray results of *Dlx5/6*-CIE-labeled cortical interneurons

WT signal	LgDel signal	Fold-change	Gene symbol	Gene
366.5851	720.858	0.51	Fbl	Fibrillarin
550.8332	948.8289	0.58	Ppp1r14b	Protein phosphatase 1, regulatory (inhibitor) subunit 14B
1056.56	1764.297	0.60	Dip2c	DIP2 disco-interacting protein 2 homolog C (<i>Drosophila</i>)
760.4257	1246.119	0.61	Auts2	Autism susceptibility candidate 2
1157.731	1872.705	0.62	Sppl3	Signal peptide peptidase 3
962.9722	1466.667	0.66	Mark2	MAP/microtubule affinity-regulating kinase 2
1069.828	1588.752	0.67	Zfp57	Zinc finger protein 57
2096.382	3105.481	0.68	Sepw1	Selenoprotein W, muscle 1
1003.254	1400.452	0.72	Stmn3	Stathmin-like 3
2085.566	2903.5	0.72	Cux2	Cut-like homeobox 2
909.4592	1265.924	0.72	Septin3	Septin 3
711.4436	989.7512	0.72	Ctnnd2	Catenin (cadherin-associated protein), delta 2
727.4034	1002.117	0.73	Foxj3	Forkhead box J3
1042.29	1410.103	0.74	Dcakd	Dephospho-CoA kinase domain containing
1656.865	2240.173	0.74	Dlgap1	Discs, large (<i>Drosophila</i>) homolog-associated protein 1
2471.591	3331.726	0.74	Nxph1	Neurexophilin 1
1095.964	1472.2	0.74	Ctxn1	Cortexin 1
1563.04	2096.014	0.75	Vamp2	Vesicle-associated membrane protein 2
1665.494	2214.071	0.75	Chd3	Chromodomain helicase DNA binding protein 3
1445.328	1876.538	0.77	Celf3	VCUGBP, Elav-like family member 3
1295.377	1680.633	0.77	Atat1	α -Tubulin acetyltransferase 1
1588.189	2038.454	0.78	Zfp706	Zinc finger protein 706
902.6028	1156.062	0.78	Lhx6	LIM homeobox protein 6
789.4371	1010.435	0.78	Calm3	Calmodulin 3
916.0685	1153.895	0.79	Plxna2	Plexin A2
776.321	975.058	0.80	Cux1	Cut-like homeobox 1
1688.898	2116.692	0.80	Slain1	SLAIN motif family, member 1
994.4494	1245.142	0.80	Ywhah	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, eta polypeptide
838.1426	1047.689	0.80	Dusp1	Dual specificity phosphatase 1
2849.227	3541.741	0.80	Tecr	Trans-2,3-enoyl-CoA reductase
825.1348	1019.732	0.81	MacroD2	MACRO domain containing 2
891.0898	1092.161	0.82	Lsm12	LSM12 homolog (<i>S. cerevisiae</i>)
1714.049	2098.656	0.82	Dlx1	Distal-less homeobox 1
1477.302	1799.967	0.82	Gad2	Glutamic acid decarboxylase 2
936.4372	1136.487	0.82	Mex3b	Mex3 homolog B (<i>C. elegans</i>)
783.369	948.7254	0.83	Ank3	Ankyrin 3, epithelial
908.9832	1088.743	0.83	Ptprd	Protein tyrosine phosphatase, receptor type, D
1117.204	1326.444	0.84	Mapk8	Mitogen-activated protein kinase 8
1116.761	1318.982	0.85	Mapk10	Mitogen-activated protein kinase 10
852.4502	1004.727	0.85	Wdfy3	WD repeat and FYVE domain containing 3
1865.172	2195.219	0.85	Myo18b	Myosin XVIIIb
2427.399	2853.562	0.85	Cxcr4	Chemokine (C-X-C motif) receptor 4
1494.997	1742.484	0.86	Efnb2	Ephrin B2
1314.085	1050.263	1.25	Syngap1	Synaptic Ras GTPase activating protein 1 homolog (rat)
1853.097	1475.546	1.26	Ube2l3	Ubiquitin-conjugating enzyme E2L 3
3327.537	2648.795	1.26	Ywhaz	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide
1202.928	957.3133	1.26	Luc7l3	LUC7-like 3 (<i>S. cerevisiae</i>)
1584.821	1260.298	1.26	Tpm3	Tropomyosin 3, gamma
1855.987	1472.278	1.26	Rab2a	RAB2A, member RAS oncogene family
2443.298	1935.401	1.26	Csrnp3	Cysteine-serine-rich nuclear protein 3
1292.005	1021.467	1.26	Dact1	Dapper homolog 1, antagonist of beta-catenin (<i>Xenopus</i>)
2386.115	1880.076	1.27	Ddx5	DEAD (Asp-Glu-Ala-Asp) box polypeptide 5
1552.606	1220.51	1.27	Aff4	AF4/FMR2 family, member 4
1311.399	1028.731	1.27	Pfn2	Profilin 2
2547.238	1993.3	1.28	Nedd4	Neural precursor cell expressed, developmentally down-regulated 4
1338.838	1043.379	1.28	Camsap111	Calmodulin regulated spectrin-associated protein 1-like 1
1406.749	1089.912	1.29	Paip2	Polyadenylate-binding protein-interacting protein 2
1005.523	771.3785	1.30	Spin1	Spindlin 1
2187.384	1671.031	1.31	Usmg5	Up-regulated during skeletal muscle growth 5
1201.904	911.8586	1.32	Srsf3	Serine/arginine-rich splicing factor 3
2793.839	2092.908	1.33	Eif1	Eukaryotic translation initiation factor 1



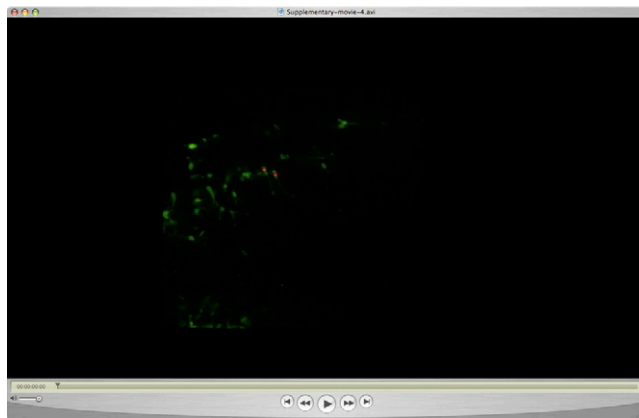
Movie S2. Live imaging of tangential cortical interneuron migration for 6.5 h in E13.5 *LgDel* forebrain slices.

[Movie S2](#)



Movie S3. Live imaging of radial cortical interneuron migration in E13.5 WT forebrain slices.

[Movie S3](#)



Movie S4. Live imaging of radial cortical interneuron migration in E13.5 *LgDel* forebrain slices.

[Movie S4](#)