Supplementary Figure 6



Supplementary Figure 6. NSCs and niche astrocytes show selective absence of Dlk1 imprinting postnatally. (a) Northern-blot from whole brain samples derived from $Dlk1^{+/+}$, $Dlk1^{-/+}$, $Dlk1^{+/-}$ and $Dlk1^{-/-}$ mice. Dlk1 imprinting is predominant in adult brain. (b) Immunohistochemistry for DLK1 (green) in $Dlk1^{+/+}$ and $Dlk1^{+/-}$ mice showing imprinting in β III-tubulin+ neurons (red) of the septum (sp) and ventral striatum (Vst). V, lateral ventricle. (c) Immunohistochemistry for DLK1 (green) in tyrosine hydroxylase (TH, red)-positive neurons of the ventral midbrain of $Dlk1^{+/+}$, $Dlk1^{-/+}$ and $Dlk1^{+/-}$ mice. Dlk1 imprinting in these two non-neurogenic zones is observed. DAPI (blue) was used for counterstaining. (d) Genomic DNA sequence traces showing diagnostic strain-specific polymorphism for detection of Dlk1 (T/C), Gtl2 (C/T) and Snrpn (C/T) imprinting using *Mus musculus domesticus* (abbreviated, BL6) and *Mus musculus castaneus* (abbreviated, Cast) mice. (e) Sequence

analysis of *Dlk1* expressed isoforms A (secreted isoform) and D (membrane bound isoform) from SVZ, NSCs, and niche astrocytes derived from BL6 and Cast hybrid mice. (f) Sequence analysis of RT-PCR products from SVZ, NSCs, and niche-astrocytes derived from reciprocal F1 hybrids from BL6 and Cast mice at different developmental stages. Three independent experiments with three samples of each were used for sequencing analysis. Scale bars: left and right panels in b, 40 µm; central panel in b and c, 10 µm.