



### Supplementary Figure S4: Engineering conditional knockout mice lacking *Pcdh15* exon 38

(a) Schematic of the exon38-recombinant alleles of *Pcdh15* (see Methods)

(b) Confocal images of whole mount preparations of cochlear sensory epithelia from conditional *Pcdh15*  $\Delta'$ CD2 and KO *Pcdh15*  $\Delta'$ CD2 P7 mice obtained by crossing *Pcdh15*<sup>ex38-fl/ex38-fl</sup> mice with *Myo15-cre* and *PGK-cre* mice, respectively (Caberlotto et al, 2011; Lallemand et al, 1998). Actin staining (red). The hair bundles of KO *Pcdh15*  $\Delta'$ CD2 OHCs, but not of conditional *Pcdh15*  $\Delta'$ CD2 OHCs, show planar polarity defects and abnormal shape of the OHC hair bundles similar to those described previously in knockout mice lacking *Pcdh15*-CD2 (*PCDH15*- $\Delta$ CD2) (Webb et al, 2011).

Scale bar: 2  $\mu$ m