



Supplementary Figure 1. *mBrd4* expression and auditory neuropathy (A) qRT-PCR results showed that *mBrd4* (Exon 5-6) levels were decreased significantly in (white) *Atoh1-Brd4*^{-/-} compared to (striped) *Brd4*^{fl/fl} samples (triplicates of each n=4, *Brd4*^{fl/fl} and n=4, *Atoh1-Brd4*^{-/-} samples). (B) qRT-PCR results showed that *mBrd4* (Exon 5-6) levels had no significant decrease in (grey) *Brd4*^{+/+} compared to (striped) *Brd4*^{fl/fl} samples (triplicates of each n=3, *Brd4*^{+/+} and n=4, *Brd4*^{fl/fl} samples) (Standard T-test was performed to determine the significance of the experiment, * p<0.05, ** p<0.01, *** p<0.001, ns-not significant). (C) The ABR thresholds for click response in (striped) *Brd4*^{fl/fl} mice (n=5) were ~67dB SPL and ~100 dB SPL in (white) *Atoh1-Brd4*^{-/-} (n=5). For the pure-tone frequencies, *Atoh1-Brd4*^{-/-} mice had significantly elevated ABR thresholds (~100dB SPL) compared with control mice. (D) The ABR thresholds for click response in (grey) *Brd4*^{+/+} mice (n=4) were ~65dB SPL and ~67 dB SPL in (striped) *Brd4*^{fl/fl} (n=5) with no significant difference. Similarly, for the pure-tone frequencies, they had similar thresholds with no significant difference. (E) The DPOAE recordings of (dashed white line) *Atoh1-Brd4*^{-/-} (n=5) mice showed reduced amplitudes, from low to high frequencies (8KHz-24 KHz) compared to (dashed black line) *Brd4*^{fl/fl} group (n=5). (F) The DPOAE recordings of (black line) *Brd4*^{+/+} (n=4) mice showed no significant reduction in amplitudes, compared to (dashed black line) *Brd4*^{fl/fl} group (n=5). Noise floor is indicated with a dotted grey line. (Standard T-test was performed to determine the significance of the experiment, * p<0.05, ** p<0.01, *** p<0.001, ns-not significant).