

Supplementary Materials

Additional file 1

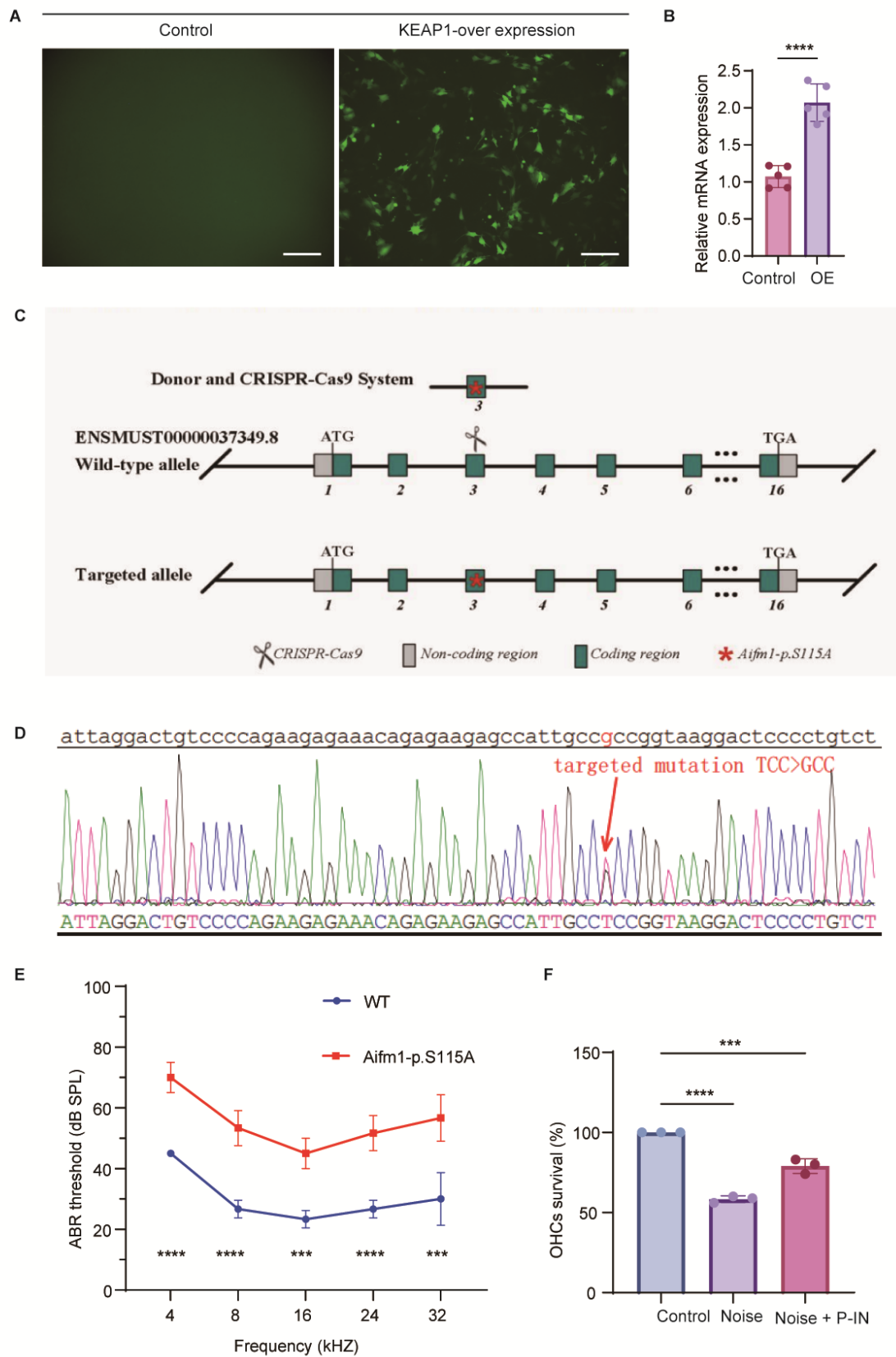


Fig. S1 Construction of *Aifm1*-p.S116A mutant mice. **A** GFP fluorescence was monitored to assess transfection efficiency following Keap1-overexpression plasmid delivery. Scale bar, 200 μ m. **B** Quantitative real-time PCR analysis of Keap1 expression after overexpression (OE), $n = 5$. **C** CRISPR-Cas9-mediated gene-editing strategy for generating *Aifm1*-p.S115A mutant mice. **D** Sequencing validation of *Aifm1*-p.S115A mutant mice. **E** Baseline levels of auditory brainstem response (ABR) threshold in *Aifm1*-p.S115 mutant mice. Multiple t -tests were performed to assess significance. **F** Quantification of OHCs survival at the middle turn in Fig. 7J. P-IN is the abbreviation of PGAM5 inhibitor. One-way ANOVA was used to compare the treatment group with the control group. All the data are presented as the mean $\pm$ SD of three independent experiments ($n = 3$). $*P < 0.05$, $**P < 0.01$, $***P < 0.001$, $****P < 0.0001$ compared with the control.

Additional file 2 — The primers used for qRT-PCR experiments

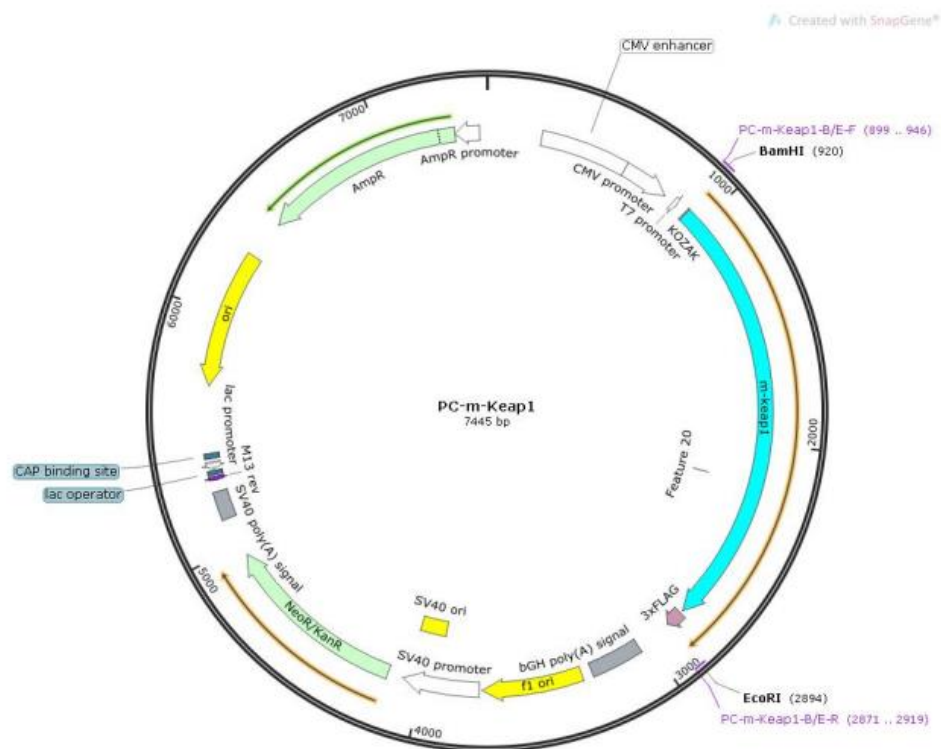
Table 1. qRT-PCR primers list

Names	Sequences
Keap1 (mouse)	Forward: 5'- TGCCCCTGTGGTCAAAGTG-3'
	Reverse: 5'- GGTTTCGGTTACCGTCCTGC-3'
Gapdh (mouse)	Forward: 5'- GTCTTCACCACCATGGAGAA -3'
	Reverse: 5'- TAAGCAGTTGGTGGTGCAG-3'

Additional file 3

The plasmid used for cell transfection

The schematic diagram of the pcDNA3.1-3xFlag vector is shown below.



Plasmid sequencing results :

AGACCCACTGCTTACTGGCTTATCGAAATTAATACGACTCACTATAGGGAGACCCAAGC
TGGCTAGTTAAGTTGGTACCGAGCTCGGATCCGCCACCATGCAGCCCGAACCCAAGCTT
AGCGGGGCTCCCCGCAGCAGCCAGTTCCTGCCCCTGTGGTCAAAGTGCCCCGAGGGGGC
CGGGGACGCAGTGATGTATGCCTCCACGGAGTGCAAGGCAGAGGTGACGCCCTCGCAG
GACGGTAACCGAACCTTCAGCTACACACTAGAGGATCACACCAAGCAGGCTTTTGGCGT
CATGAACGAGCTTCGCCTGAGCCAGCAACTCTGTGACGTGACCCTGCAGGTCAAATATG
AGGACATCCCAGCTGCCCAATTCATGGCTCACAAAGTGGTGCTGGCCTCCTCCAGCCCA
GTCTTTAAAGCCATGTTACCAACGGGCTTCGGGAGCAGGGCATGGAGGTGGTGTCCAT
CGAAGGCATCCACCCTAAGGTCATGGAAAGGCTTATTGAGTTCGCCTACACGGCCTCCA
TCTCCGTGGGCGAGAAGTGTGTCCTGCACGTGATGAACGGGGCGGTCATGTACCAGATT
GACAGCG
TGGTTCGAGCCTGCAGCGACTTCCTCGTGCAGCAGCTGGACCCAGCAACGCCATTGGC
ATCGCCAACTTCGCGGAGCAGATCGGCTGCACTGAACTGCACCAGCGTGCCCGGGAGTA
TATCTACATGCACTTCGGGGAGGTGGCCAAGCAGGAGGAGTTCTTCAACCTGTCACACT
GCCAGCTGGCCACGCTCATCAGCCGGGATGATCTGAACGTACGCTGCGAGTCCGAGGTG
TTCCACGCGTGCATCGACTGGGTCAAATACGACTGCCCCGCAGCGGCGCTTCTACGTGCA
GGCACTGCTGCGGGCCGTGCGCTGCCATGCGCTCACGCCGCGCTTCCTGCAGACGCAGC
TGCAGAAGTGTGAGATCCTGCAGGCCGACGCGCGCTGCAAGGACTACCTGGTGCAGAT

ATTCCAGGAGCTCACGCTGCACAAGCCACGCAGGCAGTGCCCTGCCGCGCGCCCAA
GTGGGCCGCCTCATCTACACAGCGGGCGGTTACTTCCGACAGTCGCTCAGCTACCTGGA
GGCCTACAACCCGAGCAATGGCTCCTGGCTGCGCCTGGCCGATCTACAGGTGCCGCGCA
GTGGGCTGGCAGGCTGCGTGGTGGGTGGGCTGCTATACGCTGTGGGCGGCCGCAACAA
CTCTCCGGATGGCAACACTGACTCCAGCGCCCTGGACTGCTACAACCCCATGACCAACC
AGTGGTCGCCCTGTGCCTCTATGAGCGTGCCACGCAACCGCATAGGGGTGGGGGTGATA
GATGGCCACATCTACGCAGTCGGGGGTTCACGCTGCATCCACCACAGCAGCGTGGA
GAGATATGAGCCAGAGCGGGACGAGTGGCATCTAGTCGCGCCAATGTTGACACGGAGG
ATTGGCGTGGGCGTGGCAGTGCTCAACCGCTTGCTGTATGCAGTGGGGGGCTTTGACGG
GACTAACC
GGCTTAACTCCGCAGAATGTTACTATCCAGAGAGGAATGAGTGGCGGATGATCACACCG
ATGAATACCATCCGGAGCGGGGCCGGGGTCTGCGTGCTGCACAACGTATCTATGCAGC
AGGGGGCTACGATGGGCAGGACCAGTTGAACAGTGTGGAGCGCTACGACGTGGAGACA
GAGACCTGGACTTTTCGTAGCCCCCATGAGGCATCACCGTAGTGCCTGGGGATTACTGT
GCACCAGGGCAAGATCTACGTCCTCGGAGGCTATGATGGCCACACTTTTCTGGACAGTG
TGGAATGCTATGACCCGGACAGTGATACCTGGAGTGAGGTGACCCGCATGACATCTGGC
CGCAGCGGGGTGGGTGTGGCCGTCACCATGGAACCCTGTCGGAAGCAAATTGATCAAC
AAACTGTACCTGCGGTACCTTAATTAACGACTACAAGGATGACGATGACAAGGATTAC
AAAGACGACGATGATAAGGACTATAAGGATGATGACGACAAATAAGAATTCTGCAGAT
ATCCAGCACAGTGGCGGCCGCTCGAGCATGCATCTAGAGGGCCCTTCGAACAAAACTC
ATCTCAGAA GAGGATCTGAATATGCATACCGGTCATCATCACCATC