Supplementary Table 1 Primers used in genotyping

Genes	Primers (5’-3’)
Ccr2 common allele	TAAACCTGGTCACCACATGC
Ccr2 wild type allele	GGAGTAGAGTGGAGGCAGGA
Ccr2 mutant allele	CTTGATGACGTCCTCGGAG
Cx3cr1 common allele	CCCAGACACTCGTTGTCCTT
Cx3cr1 wild type allele	GTCTTCACGTTCGGTCTGGT
Cx3cr1 mutant allele	CTCCCCCTGAACCTGAAAC

Supplementary Figure 1

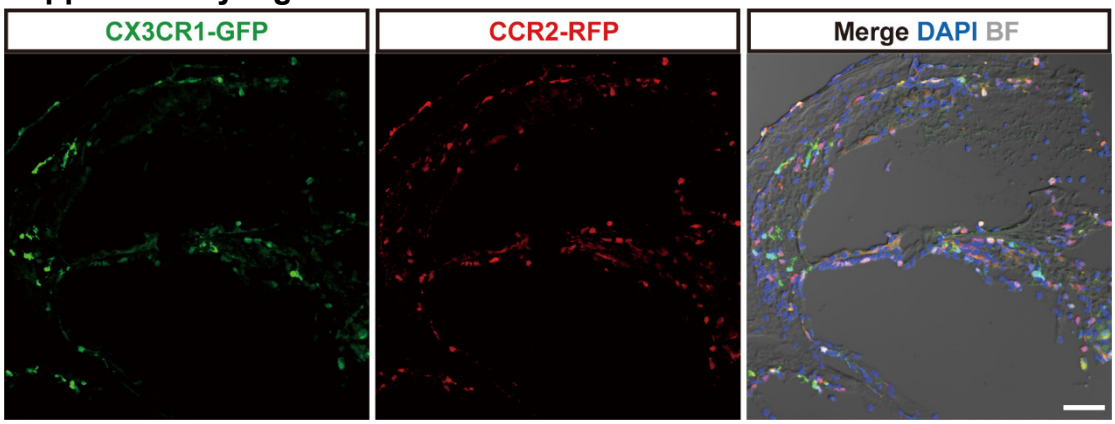


Figure S1. Confocal images show the distribution of CX3CR1-GFP (green) and CCR2-RFP (red) cells in cochlea cross-section of $Ccr2^{RFP/+}Cx3cr1^{GFP/+}$ mice D1 after cochlea implant surgery. Cell nuclei were labeled with DAPI (blue). BF: brightfield. Scale bar=50μm.

Supplementary Figure 2

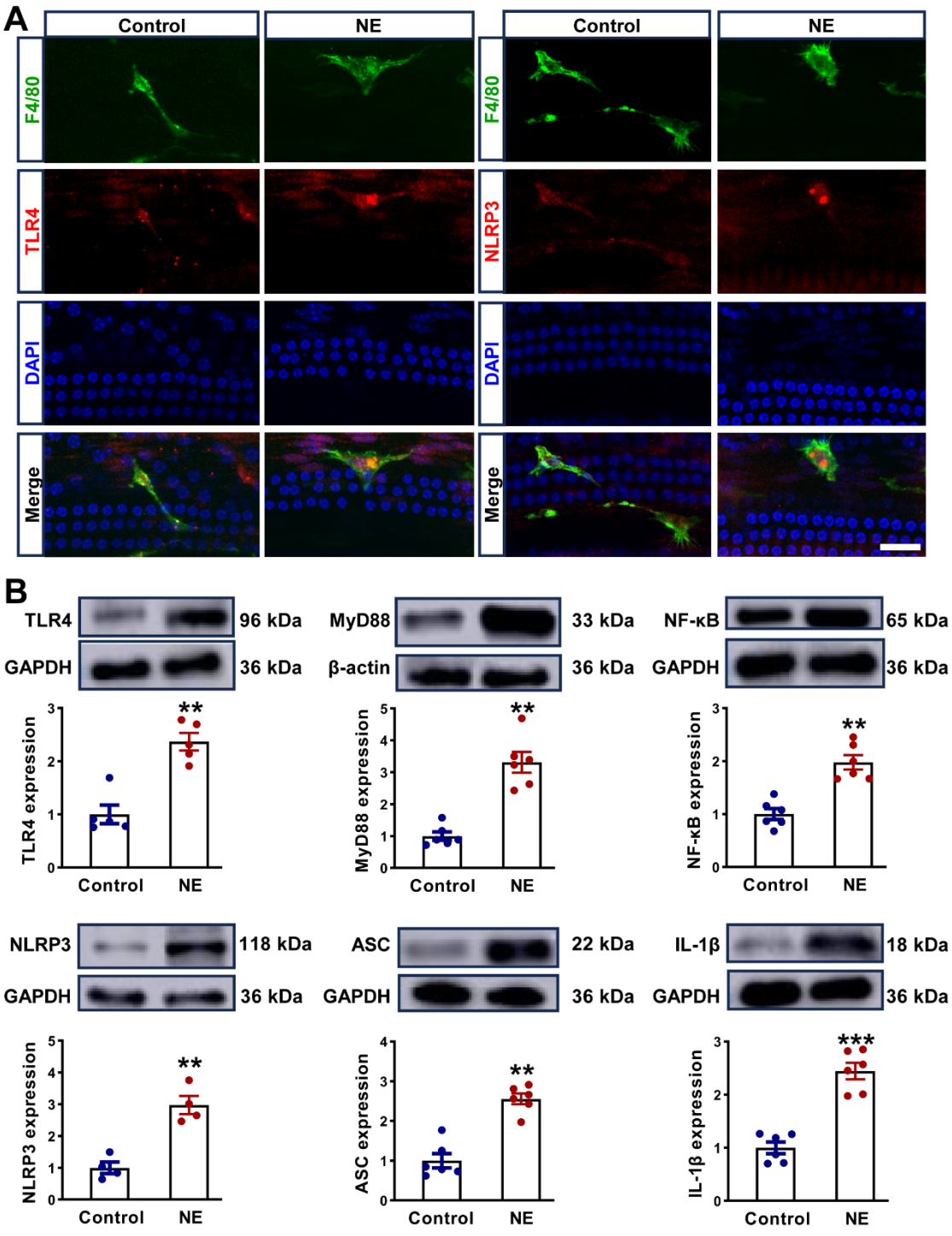


Figure S2. Increased expression of TLR4 and NLRP3 in macrophages from basilar membrane area after noise exposure. (A) Representative immunofluorescent staining images show the macrophages before (control) and D7 after noise exposure (NE). Left panels: TLR4 (red) was co-localized with F4/80 (green) in macrophage. Right panels: NLRP3 (red) was co-localized with F4/80 (green) in macrophage. Hair cell nuclei were labeled with

DAPI (blue). Scale bar=20 μm. (B) Representative western blotting bands (upper panels) and normalized expression level (lower panels) of TLR4, MyD88, NF-κB, NLRP3, ASC, and IL-1β from cochlea before (control) and 2 days after noise exposure (NE). GAPDH and β-actin were applied as the loading control. (n > 4 mice for each group. $^{**}P < 0.01$; $^{***}P < 0.001$, Student's t-test). Data are presented as mean ± SEM.

Supplementary Figure 3

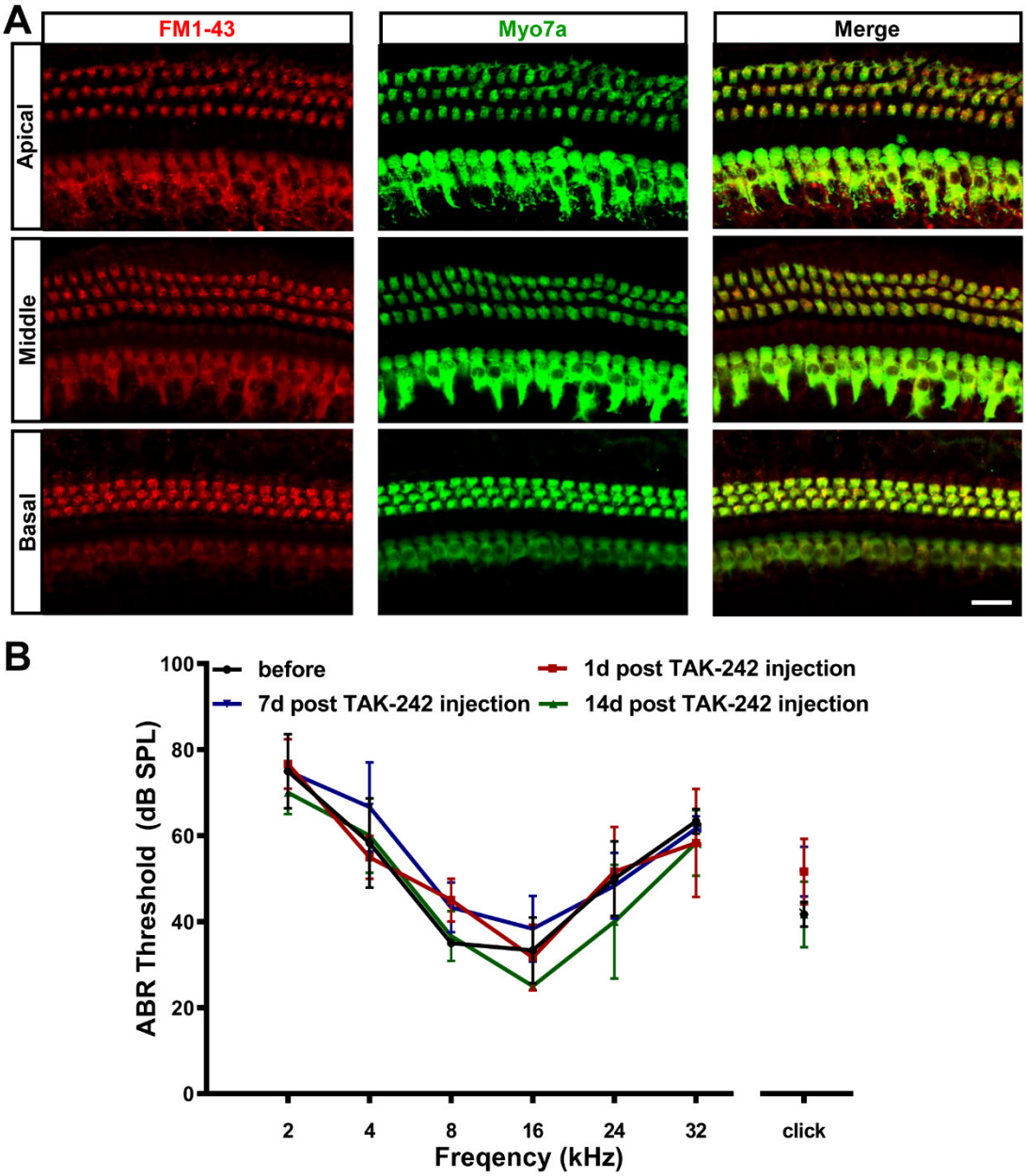
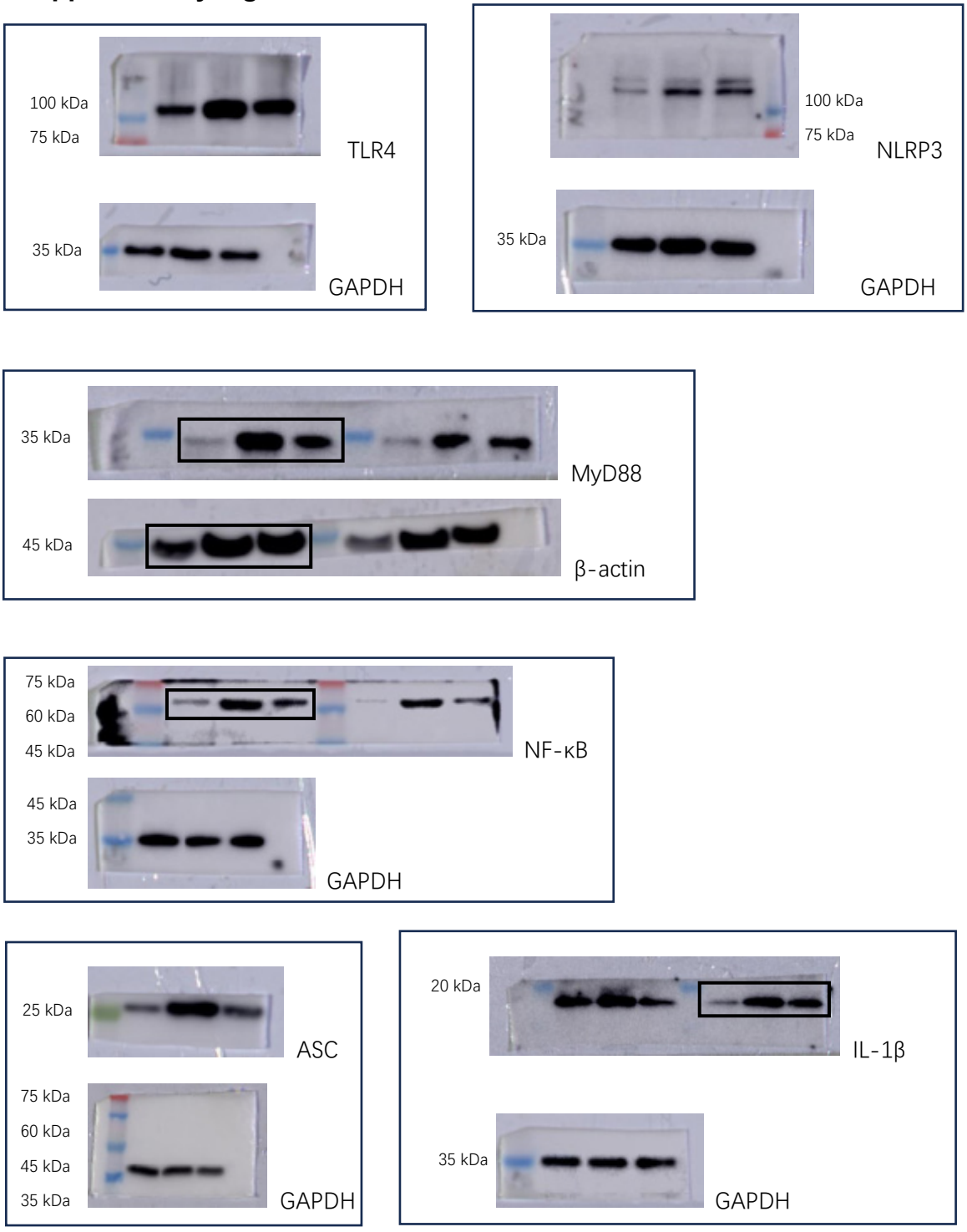


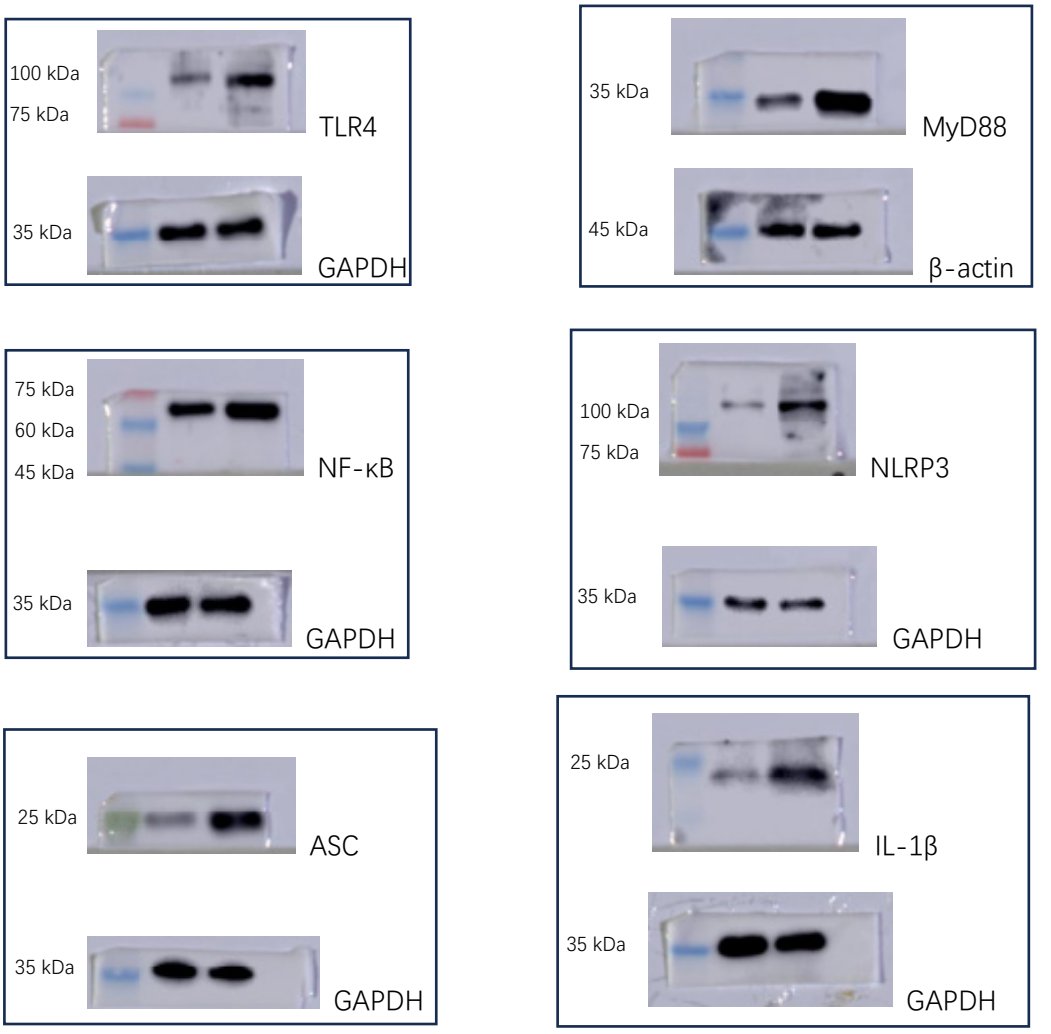
Figure S3. Trans-tympanic injection of TAK-242. (A) Representative confocal images show intact hair cells after trans-tympanic injection of FM1-43 (red). HCs were labeled with myosin 7a (green). scale bar: 20 μm. (B) ABR thresholds in response to tone bursts and clicks before, D1, D7, and D14 post-trans-tympanic injection of TAK-242 (n = 3 mice for each group). The data were presented as mean ± SEM. No significant difference was found after injection.

Supplementary Figure 4



Original immunoblot bands for Figure 4.

Supplementary Figure 5



Original immunoblot bands for Supplementary Figure 2.