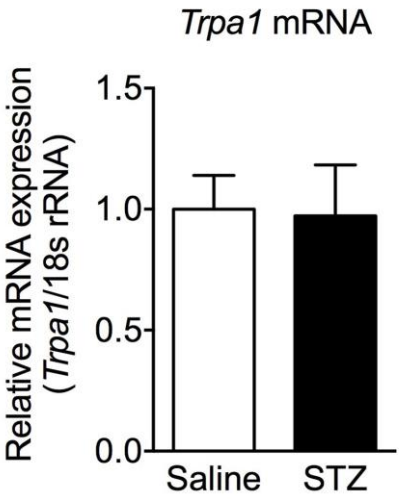
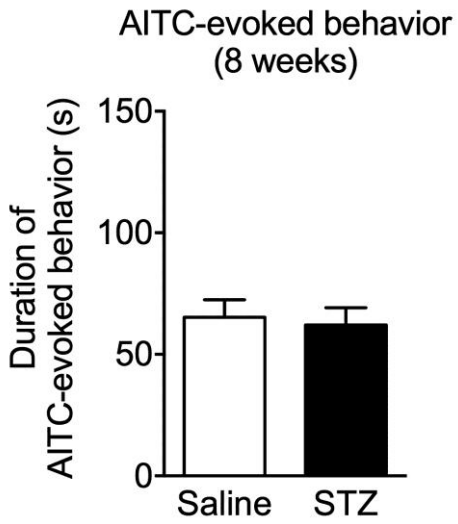
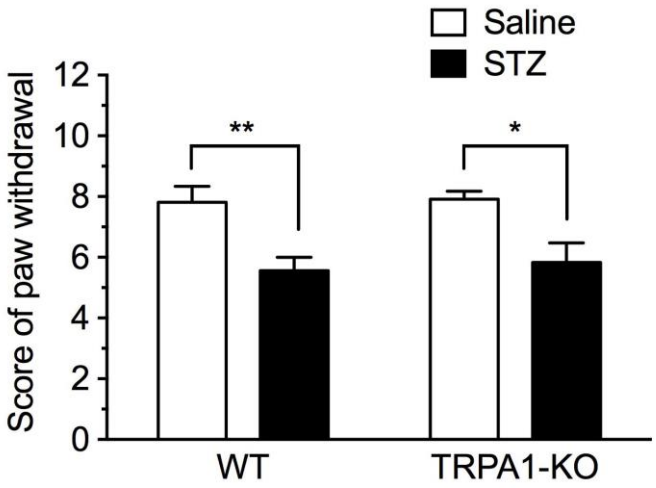


Supplementary Figure 1. The expression level of TRPA1 mRNA in the DRG is not changed in the early painful phase of STZ-induced DPN. Mice were injected with saline or STZ (50 mg/kg, i.p.) for 7 consecutive days. Two weeks after the administrations, the L4 DRG was dissected, and the mRNA expression levels of TRPA1 and 18S rRNA were measured by quantitative real-time PCR methods. The mRNA expression level of TRPA1 was normalised to that of 18S rRNA and expressed relative to the normalised expression level in saline-treated non-diabetic mice. $n = 9$. Data are expressed as means ± S.E.M.



Supplementary Figure 2. TRPA1 sensitization is recovered in the late phase of STZ-induced DPN. Mice were injected with saline or STZ (50 mg/kg, i.p.) for 7 consecutive days. Eight weeks after the administrations, the duration (s) of nocifensive behavior (licking) evoked by intraplantar injection of 0.05% AITC was measured for 5 min. n = 8–12. Data are expressed as means ± S.E.M.



Supplementary Figure 3. Mechanical hyposensitivity in the late phase of STZ-induced DPN in TRPA1-KO mice. WT or TRPA1-KO mice were injected with saline or STZ (50 mg/kg, i.p.) for 7 consecutive days. To detect mechanical hyposensitivity, the mechanical sensitivity in the hindpaw was assessed by scoring paw withdrawal responses 8 weeks after STZ administration. To determine the paw withdrawal score, a calibrated von Frey filament (0.4 g) was applied to the plantar surface of the hindpaw 10 times. The paw withdrawal response was graded using the following scores: 0, no response; 1, lifting of the hindpaw; and 2, flinching or licking of the hindpaw. One trial involved 10 applications every 3 or 4 s, each of which was scored as 0, 1 or 2. The trial was evaluated based on a total score of 0 to 20 at culmination. n = 12–25. *P < 0.05, **P < 0.01. Data are expressed as means ± S.E.M.