

Fig. S15. Effects of systemic administration of YHV98-4 (10 mg/kg, i.p.) in CFA or SNI mice a,b Time courses for the analgesic effects of YHV98-4 (10 mg/kg) on mechanical allodynia (a) and heat hyperalgesia (b) in CFA induced chronic inflammatory pain female mice (n = 10, female mice, two way repeated-measures ANOVA followed by Sidak's multiple comparisons test.). c,d Time courses for the effects of YHV98-4 on mechanical allodynia (c), and heat hyperalgesia (d) in SNI induced neuropathic pain mice (n = 9-13, Two way repeated-measures ANOVA followed by Sidak's multiple comparisons test.). e Rotarod test in mice after injection of vehicle or YHV98-4 (n = 10, two sample *t* test). f Grip strength test in mice treated with vehicle or with YHV98-4 (n = 9-10, two sample *t* test). g,h Basal mechanical allodynia and thermal hyperalgesia under SNI in WT or *Hvcn1*^{-/-} mice (n = 7-16, Two way repeated-measures ANOVA followed by Sidak's multiple comparisons test.). i-k

Analgesic effect of YHV98-4 in WT or *Hvcn1*^{-/-} mice under CFA condition (n = 6-13, Two way repeated-measures ANOVA followed by Sidak's multiple comparisons test or two sample *t* test.). **1,m** Analgesic effect of YHV98-4 under SNI in WT or *Hvcn1*^{-/-} mice (n = 6-12, Two way repeated-measures ANOVA followed by Sidak's multiple comparisons test.). The effects of YHV98-4 (i.p.) on mechanical allodynia was measured at day 7 to day 8, and on heat hyperalgesia was measured at day 9 to day 10. All data are shown as mean \pm SEM. n.s., not significant, **P* < 0.05, ***P* < 0.01, ****P* < 0.001.