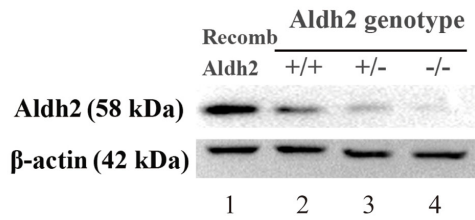
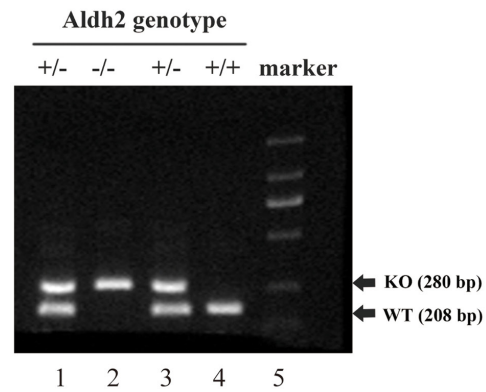


Figure S1. Generation of *aldh2* KO and WT mice. (A) Western blot analysis of *aldh2* expression in ICR mouse liver. The targeting mouse liver mitochondrial fractions were subjected to immunoblot analysis with anti-Aldh2 antibody. Lane 1 is recombinant *aldh2* protein. Lanes 2-4 are *Aldh2*<sup>+/+</sup>, *+/+* and *-/-*, respectively. (B) PCR analysis of *aldh2* DNA extracted from ICR mouse tails. Both lanes 1 and 3 indicate *aldh2*<sup>+/+</sup>. Lanes 2 and 4 indicate *aldh2*<sup>-/-</sup> and *+/+*, respectively. Lane 5 indicates markers. The WT (*+/+*, *+/+*) mouse showed a 208 bp fragment, and in KO (*-/-*) primer reaction system, a 280 bp fragment appeared only. (C) The mechanism of oxidative stress in ketamine-induced cystitis. Aldh2, aldehyde dehydrogenase 2; KO, knock-out; WT, wild-type; ICR, Institute of Cancer Research; KIC, ketamine-induced cystitis; ROS, reactive oxygen species; RNS, reactive nitrogen species; NF- $\kappa$ B, nuclear factor- $\kappa$ -light-chain-enhancer of B cells; iNOS, inducible nitric oxide synthase; COX-2, cyclooxygenase 2.

**A** Western blotting of *aldh2*



**B** PCR date of *aldh2*



**C**

KIC Mechanism

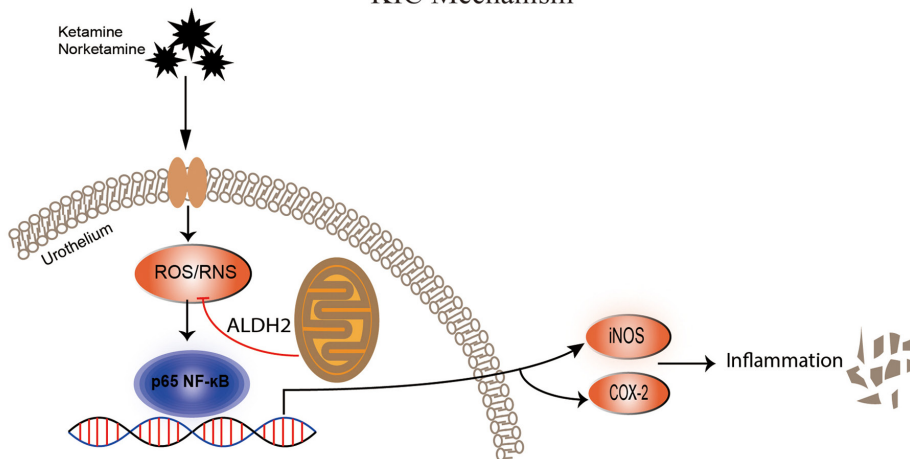
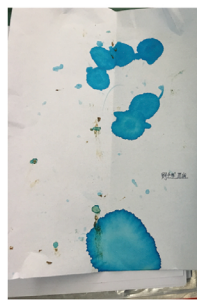


Figure S2. Measurement of the frequency of micturition based on the number of micturition points in *aldh2* KO and WT mice. *aldh2*, aldehyde dehydrogenase 2; WT, wild-type; KO, knock-out; WNS, wild-type normal saline control group; WLK, wild-type low-dose ketamine group; WHK, wild-type high-dose ketamine group; KNS, knock-out normal saline control group; KLK, knock-out low-dose ketamine group; KHK, knock-out high-dose ketamine group.



WNS



WLK



WHK



KNS



KLK



KHK