



Figure S3. Viral insertion disrupted the protein translation of *Kcnj13* by uORF1. (A) There are 11 uORFs in the 5'UTR of the *kcnj13* gene, according to UTRScan. The horizontal gray arrows indicate the identified uORFs. The vertical arrow labels the position of the viral insertion site. (B) Luciferase assay experimental design. Blue bars represent the SV40 promoter. Gray and yellow bars indicate uORF1 and firefly luciferase, respectively. The red bar is a 329bp fragment of the LTR of the MMLV. (C) Luciferase assay revealed that uORF1 inhibited translation, and this inhibition was partially abolished by the LTR insertion. The Y axis labels the relative proportion of the firefly luciferase activity to the TK promoter-driven Renilla luciferase. Asterisks (*) indicate $P=0.0001$ and 0.0004 , respectively, by unpaired t-test. The results are from 3 biological repeats ($n=3$) per group. The overall $p < 0.0001$ in the one-way ANOVA statistical analysis.