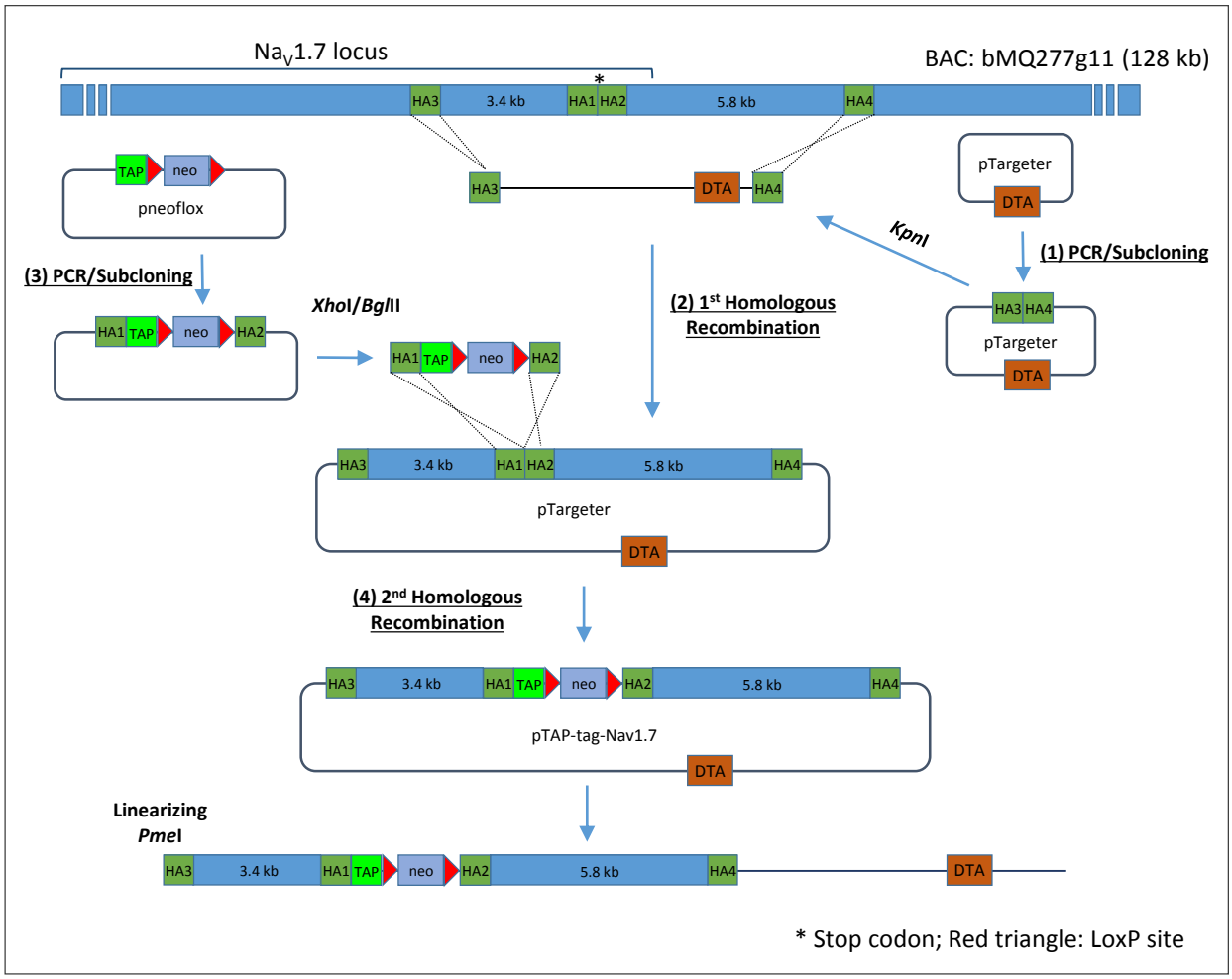


**Supplemental Fig S1. Schematic diagrams showing the steps for constructing a TAP-tagged Na$_V$1.7 gene targeting vector using BAC homologous recombineering method.**
Step (1), two short homology arms HA3 and HA4 were amplified by PCR, and then inserted into a retrieval vector pTargeter. Step (2), a 9.1 kb genomic DNA fragment (3.4 kb plus 5.8 kb) was retrieved from BAC clone bMQ277g11 through homologous recombineering. Step (3), Homology arms HA1 and HA2 were amplified and subcloned into pneoflox vector. Step (4), the excised TAG tag cassette was inserted into the pTargeter-HA3-HA4 vector by homologous recombineering in EL250 cells. The targeting vector was linearized with *Pme*I restriction enzyme and was used to generate TAP-tagged Na$_V$1.7 mouse.