



Figure S3 Schematic for two-step dual RMCE using a MiMIC element. MiMIC differs from the *VK3b-attP* element used in the present study in that it carries two attP sites in opposite orientations flanking a *yellow* marker gene. Captured segment exchange can be performed following the same steps as those demonstrated in the main text; in the initial step of inserting the donor BAC, half of all insertions will be in the correct orientation to proceed as outlined in the figure, while, by chance, half of the insertions will use the attP in the opposite orientation (not shown).