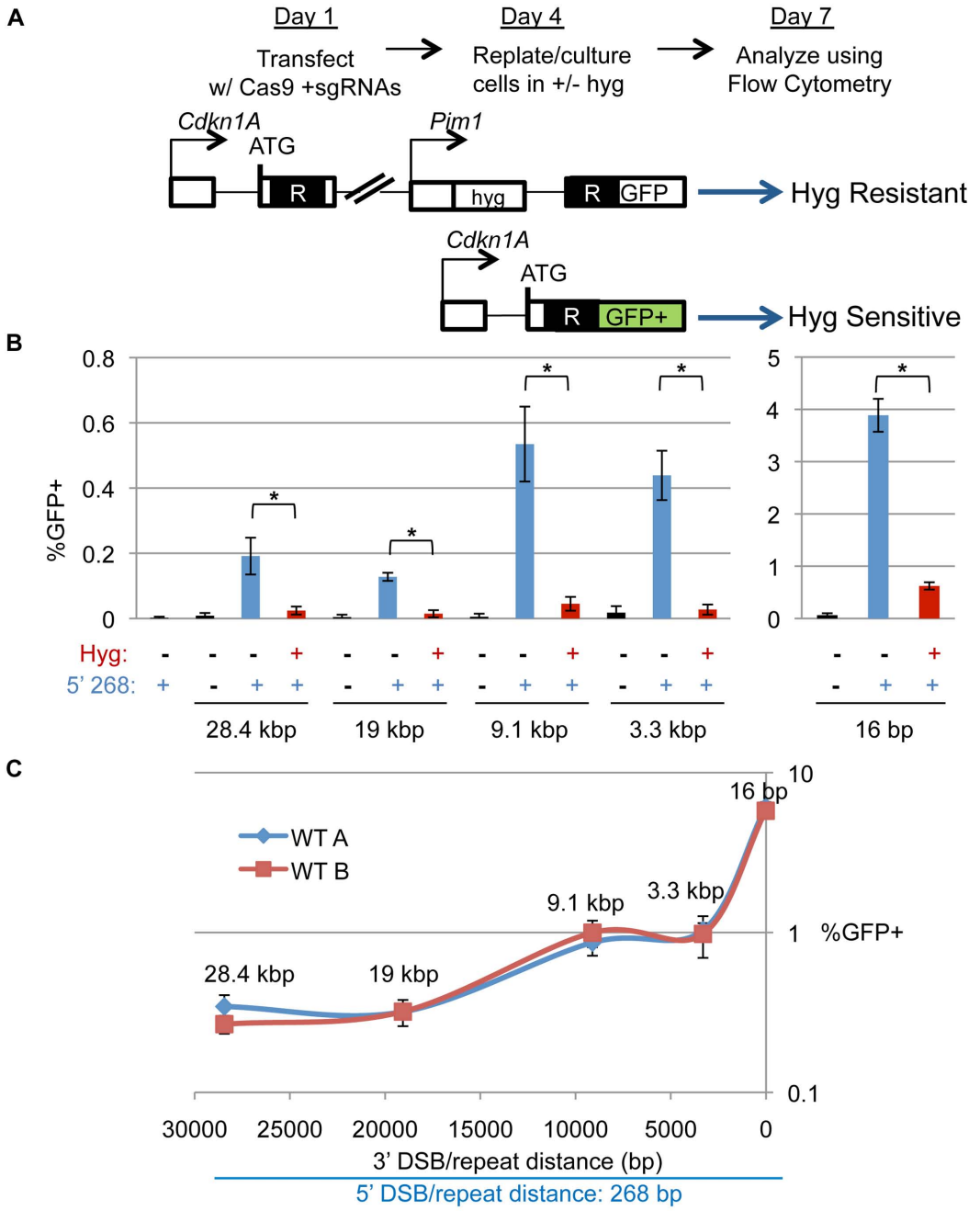

Figure S1. Control experiments for the RMD-GFP reporter. **(A)** Shown is a schematic for testing loss of the hygromycin-resistance/*hyg* marker in GFP+ cells, which involves hygromycin (*hyg*) selection several days after the initial transfection. The RMD-GFP reporter contains a *hyg* marker between the repeats, such that an RMD leading to GFP+ cells causes loss of *hyg*. **(B)** GFP+ cells from RMD-GFP are sensitive to hygromycin. Cells transfected in Fig. 1C with the respective sgRNA pairs and Cas9 were cultured without (blue bars) or with (red bars) hygromycin, using the protocol shown in (A). N= 6. Also shown for comparison are the single sgRNA/Cas9 transfections in Fig. 1C cultured with the protocol in (A) without hygromycin. N= 8. Error bars indicate s.d. *P< 0.0001 for indicated comparisons using an Unpaired *t*-test with the Holm-Sidak correction. **(C)** Shown are RMD frequencies for two independent WT *Pim1*-targeted RMD-GFP clones, analyzed as described in Fig. 1E. Clone A is the data shown in Fig 1E (N= 9), Clone B is data from a distinct clone (N= 6).