

Table S2 Integration efficiency of GMR-P[acman] constructs.

Insert Name	Insert Size (kb)	Total Vials Scored	Vials With Integrants	Efficiency of Integration
tsh1	1	45	4	8.8%
tsh50	50	90	5*	5.5%*
tsh50 Δ NC1	50	120	5*	4.2%*
tsh50 Δ NC2	50	65	5*	7.7%*

All constructs were injected by BestGene Inc. using *PBac(y⁺-attP-3B)VK00003b* as a target site and *M[vas-int.Dm]ZH2A* as a source of the integrase. Integrants were identified based on *mini-white* eye pigmentation. Efficiency of integration is calculated as the number of vials with integrants divided by the total vials scored, expressed as a percentage.

*In cases where 5 positive vials were identified, no further screening was carried out. Thus, the efficiency in these cases represents a lower limit on the true value.