

Supplementary Figure 3 Gene-trap and region-specific saturation mutagenesis using the *SB* transposon system for IF2 donor mouse. **(a)** Donor site (boxed region) in IF2 was mapped to centromeric region of chromosome 7 by FISH analysis (data not shown). Analyzes of total insertion sites from *Gfp*⁺ mice (*n*=58) display clustering near the donor site, similar to IR3 (**Fig. 2a**). Left column, schematic gene density representation showing the ratio of known genes (red): total genes (white) for chromosome 7. The abscissa shows the number of transposon integration per megabase. **(b)** A schematic representation of the 4-Mb region near the donor site (3 to 7 Mb). Out of 101 genes, 13 have transposon integration as mutant lines (highlighted in orange). **(c)** Agarose gel photographs showing results of germ cell (GC) PCR for 10 randomly selected genes. No transposition events were detected in IR3 germ cell, donor site located on chromosome 12. All 10 randomly selected genes had at least 1 transposon insertion. M, molecular marker; N, negative control; numbered lanes, germ cell PCR products from either IR3 or IF2 double-positive Tg mouse lines (100 ng germ cell genomic DNA used as template for germ cell PCR); PV/OR/TM, *Gfp*⁺ mutant lines. Arrowheads indicate sequenced PCR products confirmed to contain both transposon and gene of interest.