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Supplemental Information

Generation of High-Titer Self-Inactivated γ-Retroviral Vector Producer Cells

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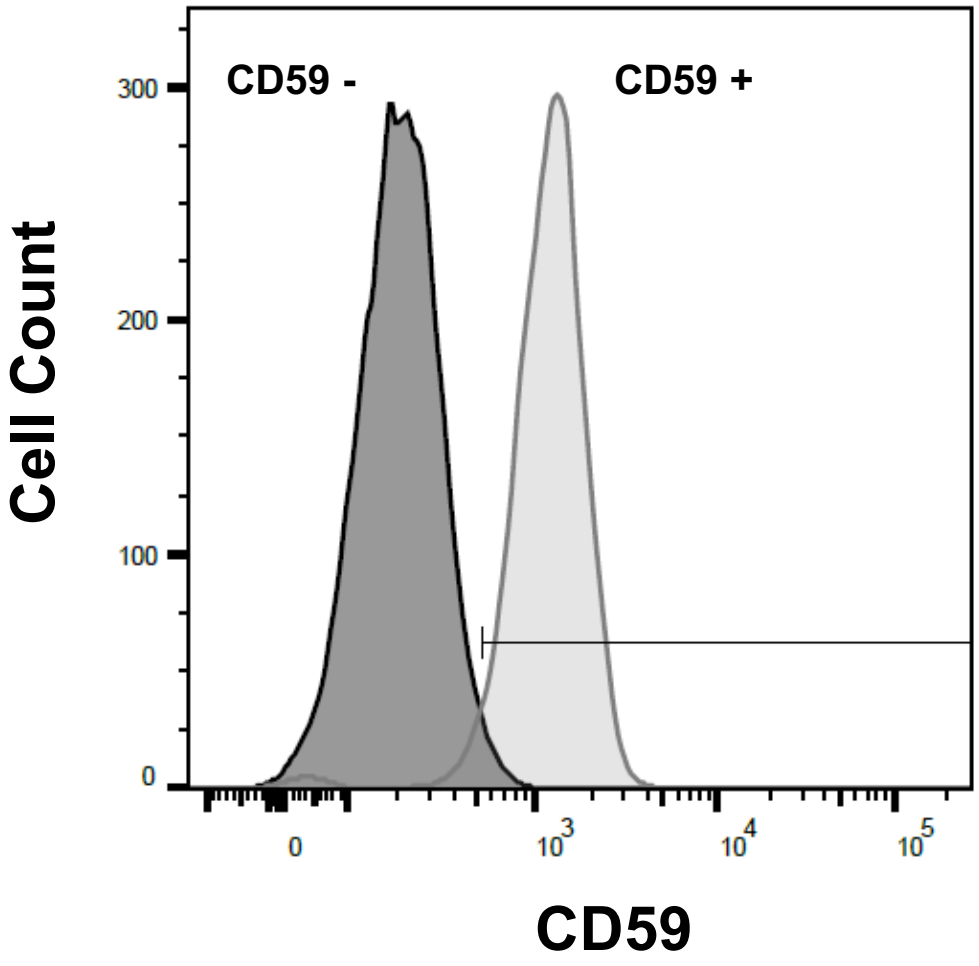

Figure S1. CD59 expression loss in K562 cells after *PIGA* gene inactivation. FACS analysis of K562 cells (light grey) and K562(PIG-) cells (dark grey) stained with an anti-CD59 antibody FITC-labeled.

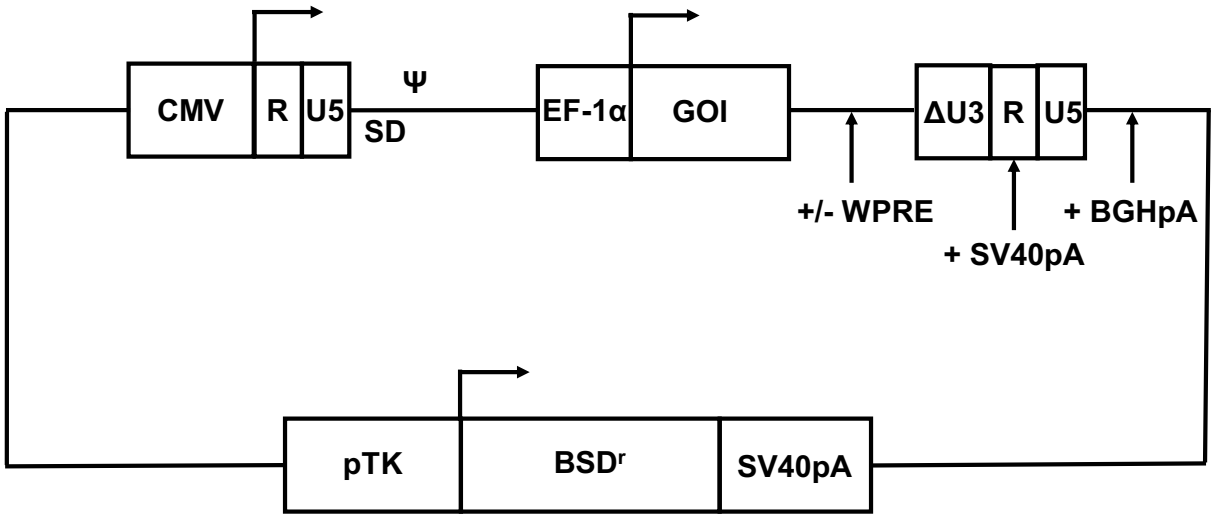

Figure S2. Design of the final SIN vector containing the blasticidin resistant cassette. SIN vectors contain a gene of interest (*GOI*; *GFP*, *COL7A1* and *PIGA*) under the control of the EF-1α promoter, the CMV promoter/enhancer sequence and the two poly(A) sequences (SV40pa and BGHpa). WPRE was present only in the GFP and PIGA vectors. SD and Ψ are splice donor site and packaging signal sequence, respectively. In the resistant cassette, the *BSD*^{r} gene was under the control of the herpes simplex virus thymidine kinase promoter (HSV-TK). A SV40pa was located downstream the *BSD*^{r} gene.

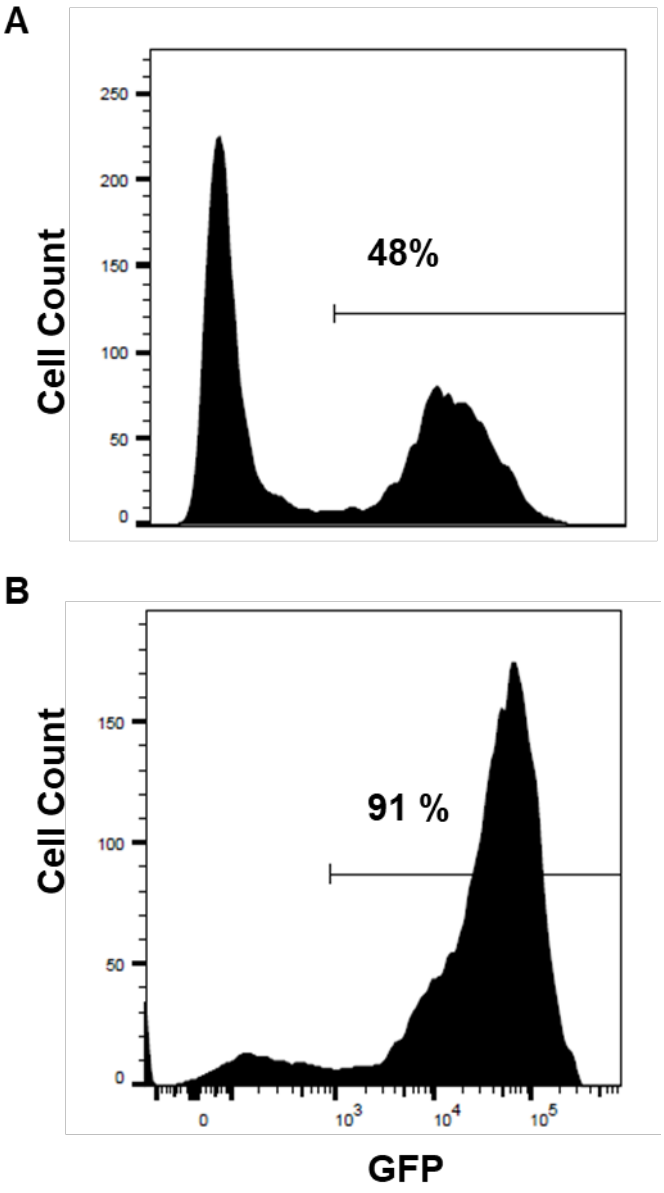

Figure S3. **GFP fluorescence of 293Vec-RD114 transfected with the SINVec.GFP plasmid.** (A) Cells selected in hygromycin and (B) in blasticidin were analyzed by FACS for GFP fluorescence. Displayed is the result of one representative experiment done three times.

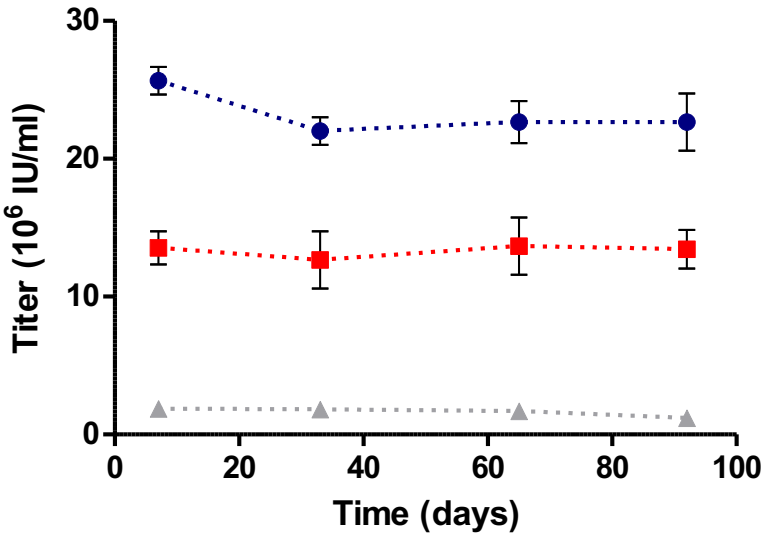

Figure S4. **Long-term stability of SIN vector production from stable vector producer clones.** Titers were measured by FACS analysis as described in the Materials and Methods section after infection of HT-1080 cells with the SINVec.GFP vector (blue) and the SINVec.COL7A1 (-W) (grey). The SINVec.PIGA vector (red) was tittered on K562(PIG-). The SIN GFP, COL7A1 and PIGA vector producer clones had 8, 7 and 4 plasmid copies/cell integrated, respectively. Values presented are the mean of one experiment done in triplicate.