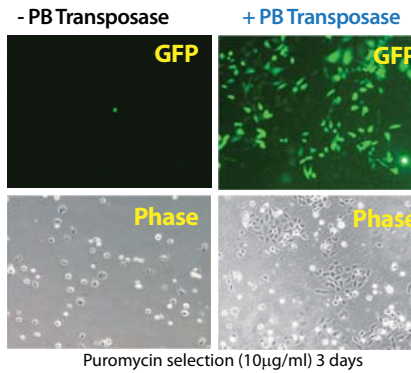
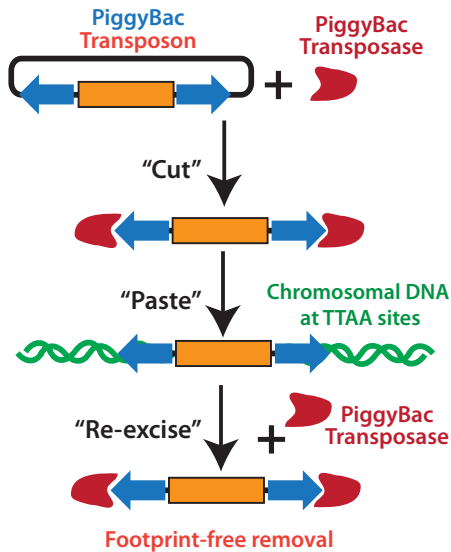




Instant & Reversible Genome Editing

The piggyBac (PB) transposon is a mobile genetic element that efficiently jumps between vectors and chromosomes via a "cut and paste" mechanism. The powerful activity of the PB transposon system enables genes of interest to be easily mobilized into target genomes. The PB system can be used to efficiently produce transgenic cell lines and animal models. PB vectors and cell lines are available through a partnership between SBI and Transposagen



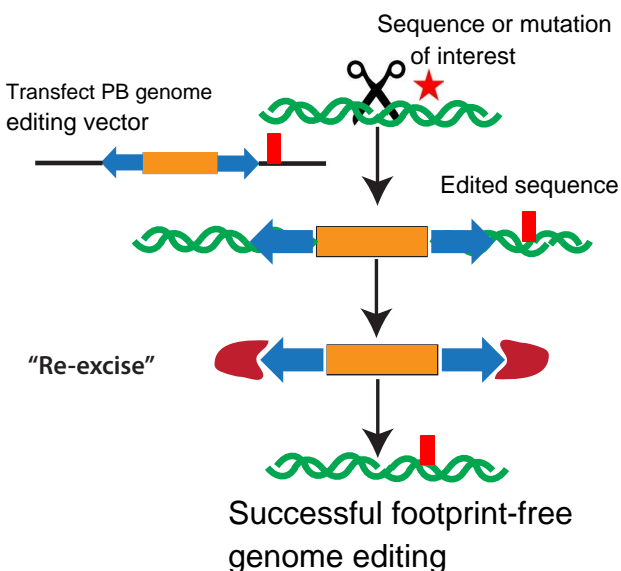
Highlights

- Single transfection makes transgenic cell lines and animal models
- Effective in all mammalian genomes including human, rat and mouse
- No cargo limit integrate 1 kb to over 100 kb
- Reversible integrations
- All-in-one inducible vector
- Site-specific genome editing
- Instant and footprint-free genome editing

Applications

- Knockout, knock-in and transgenic cell lines and animal models
- Stem cell research: reprogramming, differentiation and selection
- RNAi: inducible and reversible gene knockdown in cells and animal models
- Cell lines for robust protein production
- Gene and cell therapy, immunotherapy

Target specific nucleases contain DNA binding modules fused to cleavage domains. The target specific nucleases can be engineered to generate cleavages of most genomic sites. Target specific nucleases can be used to efficiently produce knockout and knock-in cells and animal models.



When the PB system is combined with target-specific nucleases it becomes the only technology in the world that enables rapid and clean genome editing to induce mutations or repair genetic lesion on the single nucleotide level without any unwanted mutations

Service Details

Custom genetically engineered cells, mice and rats

- Cell lines in as little as 8 weeks
- Animal models in as little as 5 months
- Guaranteed germline transmission

Custom transposon and target-specific nucleases

- Custom vectors in as little as 2 weeks
- Site specific nuclease and excisable homologous recombination vector provided
- Generate knockout, knock-in and transgenic cells and animals in-house