Additional file 1

Table S1. Oligos used to introduce sgRNA into px330. Each pair of forward and reverse primers were annealing and ligated into the PX330 vector.

|  |  |
| --- | --- |
| Oligo | Sequence (5’- 3’) |
| IL2RG F1 | CAC CCG AAG GTC CTC ACG CAC AGT |
| IL2RG R1 | AAA CAC TGT GCG TGA GGA CCT TCG |
| IL2RG F2 | CAC CCC GAA GGT CCT CAC GCA CAG |
| IL2RG R2 | AAA CCT GTG CGT GAG GAC CTT CGG |

Table S2. Primers used to generate template DNA for in vitro transcription to produce sgRNA and mRNA form of Cas9.

|  |  |
| --- | --- |
| Primer | Sequence (5’- 3’) |
| T7 IL2RG F1 | TTA ATA CGA CTC ACT ATA GGC GAA GGT CCT CAC GCA CAG T |
| T7 IL2RG F2 | TTA ATA CGA CTC ACT ATA GGC CGA AGG TCC TCA CGC ACA G |
| T7 sgRNA R1 | AAA AGC ACC GAC TCG GTG CC |
| Cas9 F | TAA TAC GAC TCA CTA TAG GGA GAA TGG ACT ATA AGG ACC ACG AC |
| Cas9 R | GCG AGC TCT AGG AAT TCT TAC |

Table S3. Primers used to genotype *IL2RG* mutations introduced by CRISPR/Cas9 system. The extend primers were used to genotype *IL2RG* from fetus 3 and 6.

|  |  |  |
| --- | --- | --- |
| Primer | Forward primer (5’- 3’) | Product size |
| IL2RG F1 | CAG AGG ATT TAG CCT GTG TCA TAG CAT ACA TTG | 425bp |
| IL2RG R1 | CCC AGT ACT CTA AAA TTT TGC CCA CAT CCT TC |
| IL2RG F1 extend | CGG TAA TAA TCA TGA CTA GAG GGA ATG AAA GAT TGA TTT ATC | 1904bp |
| IL2RG R1 extend | GAT CCC TCA CTT CTT CTT TTC TGC CCA AGT AC |

Table S4. The mutation of fetus. Two fetus contained hemizygous mutation in IL2RG, other two fetus had biallelic mutation, and 2 fetus had presumable large deletion (>1.9kb)

|  |  |  |
| --- | --- | --- |
| Fetus | sex | Mutation of IL2RG |
| 1 | Male | Hemizygous mutation |
| 2 | Male | Hemizygous mutation |
| 3 | Male | Not amplified |
| 4 | Female | Biallelic mutation |
| 5 | Female | Biallelic mutation |
| 6 | Male | Not amplified |