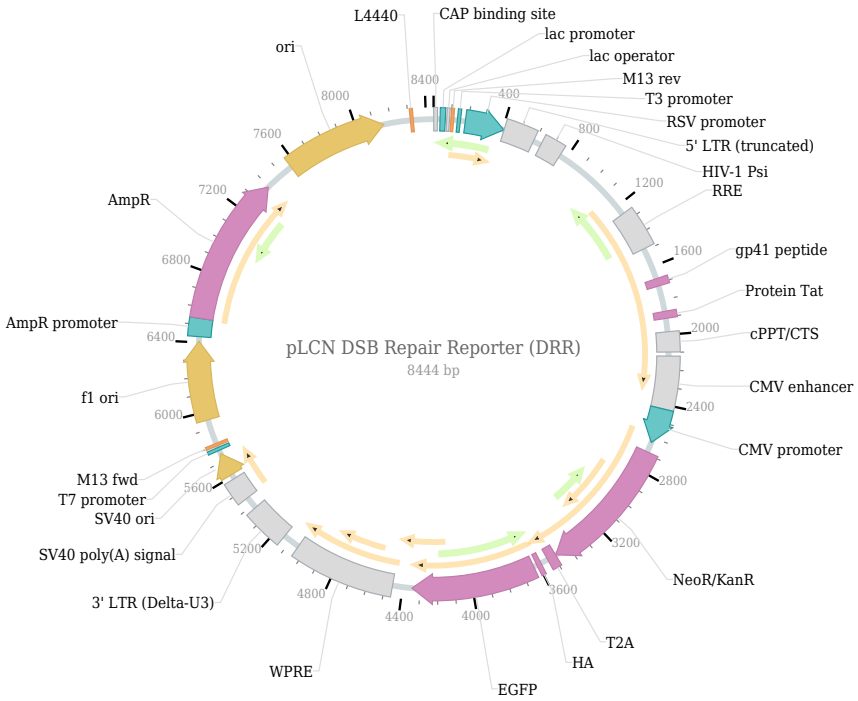
pLCN DSB Repair Reporter (DRR)

Vector ID	V005929
Antibiotic Resistance	Ampicillin
Length	8444 bp
Vector Type	Lentiviral

Product Information

Replication Origin	ori
Selection Marker	Neomycin (select with G418)
Copy Number	High Copy
Promoter	RSV
5' Primer	CGC AAA TGG GCG GTA GGC GTG
Growth Strain(s)	Stbl3
Comment	pLCN DSB Repair Reporter (DRR) is a lentiviral pLenti CMV Neo-based reporter plasmid developed to quantify two major DSB repair pathways simultaneously. It carries two inverted I-SceI cut sites upstream a disrupted GFP cassette with a stop codon, plus a BFP tag for transfection normalization. NHEJ repair restores GFP expression, while HR using an exogenous mCherry donor yields mCherry-positive cells detectable via flow cytometry. This tool was used in the CYREN study to prove CYREN suppresses NHEJ and promotes HR at intrachromosomal breaks in S/G2 phase.

Vector Map



Plasmid Resuspension Protocol

1. Centrifuge at 5,000×g for 5 min.
2. Carefully open the tube and add sterile water to dissolve the DNA: add 20 µl for 5 µg plasmid, and 100 µl for 100 µg plasmid.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin to concentrate the liquid at the bottom. Speed is less than 5000×g.
5. Store the plasmid at -20 ℃.