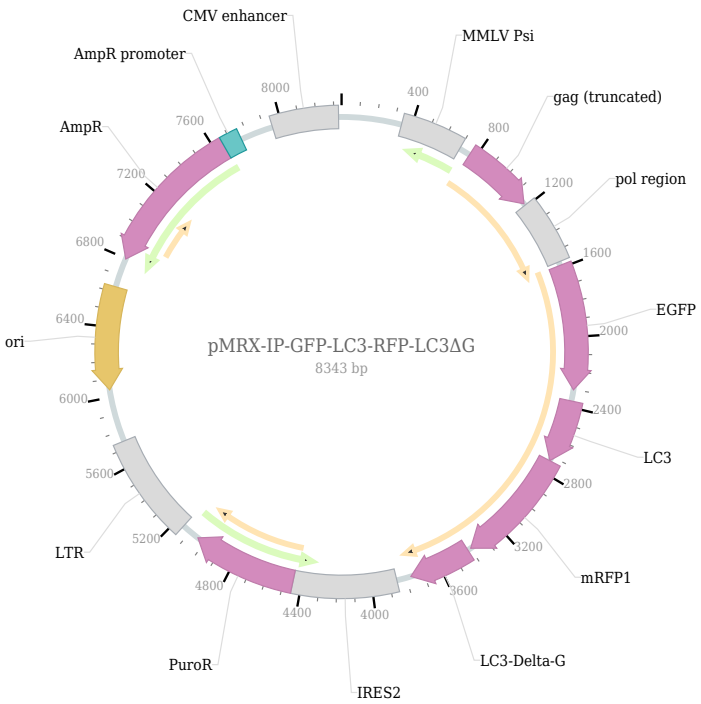
pMRX-IP-GFP-LC3-RFP-LC3ΔG

Vector ID	V013262
Antibiotic Resistance	Ampicillin
Length	8343 bp
Vector Type	Protein expression, Autophagy
Host	Mammalian cells, Retrovirus

Product Information

Replication Origin	ori
Selection Marker	Puro
Promoter	MMLV
Growth Strain(s)	Stbl3
Growth Temperature	37℃
Comment	pMRX-IP-GFP-LC3-RFP-LC3ΔG is a retroviral plasmid encoding a dual-fluorescence autophagy flux reporter. ATG4 splits the probe into GFP-LC3 and LC3ΔG-fused RFP; LC3ΔG loses lipidation capacity to keep RFP stably cytoplasmic as an internal standard. Lower GFP/RFP ratio reflects stronger autophagic degradation, compatible with cell screening and zebrafish/mouse in vivo detection. Its duplicated LC3 sequences risk recombination in bulk stable cells, requiring single-clone purification for accurate results.

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 ℃.