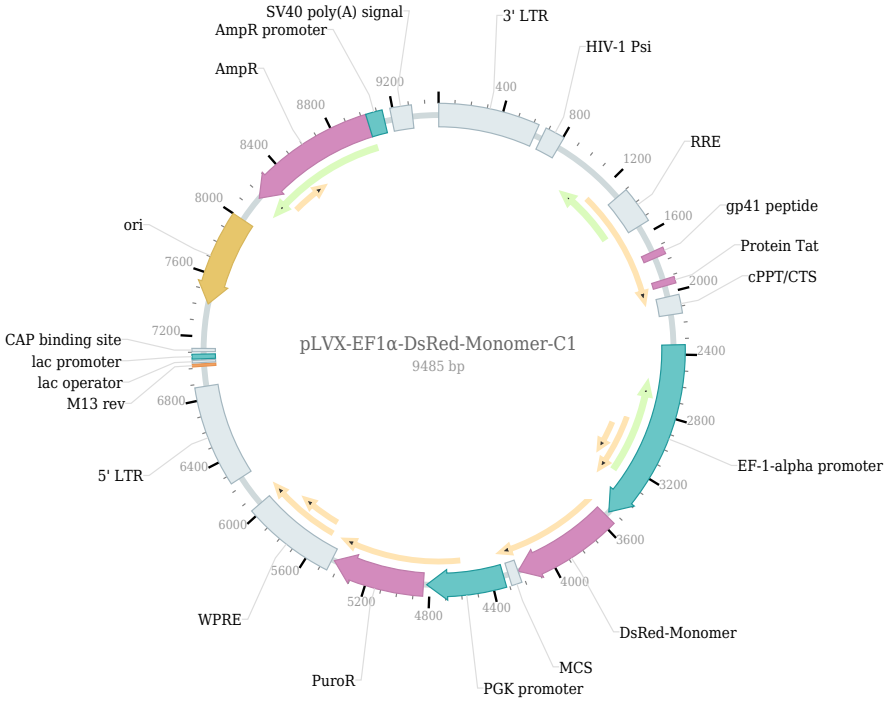
pLVX-EF1α-DsRed-Monomer-C1

载体编号 Vector ID	V012694
抗性 Antibiotic Resistance	Ampicillin
长度 Length	9485 bp
载体类型 Vector Type	Viral Expression & Packaging Vectors

产品信息

复制子 Replication Origin	ori
来源 Source/Author	Clontech
筛选标记 Selection Marker	Puromycin
拷贝数 Copy Number	High copy number
启动子 Promoter	EF-1α
克隆方法 Cloning Method	Enzyme Cut
融合标签 Fusion Tag	DsRed-Monomer
表达方式 Expression Method	Constiutive, Stable
备注 Comment	pLVX-EF1α-DsRed-Monomer-C1 is an HIV-1-based, lentiviral expression vector designed to constitutively express a protein of interest fused to the C-terminus of DsRed-Monomer, a monomeric mutant of the Discosoma sp. red fluorescent protein DsRed (1). The excitation and emission maxima of native DsRed-Monomer are 557 nm and 585 nm, respectively. Stable, constitutive expression of the fusion protein is driven by the EF1α promoter (PEF1α), which continues to be constitutively active even after the vector integrates into the host cell genome (2). pLVX-EF1α-DsRed-Monomer-C1 contains all of the viral processing elements necessary for the production of replication-incompetent lentivirus, as well as elements to improve viral titer, transgene expression, and overall vector function. The woodchuck hepatitis virus posttranscriptional regulatory element (WPRE) promotes RNA processing events and enhances nuclear export of viral RNA (3), leading to increased viral titers from packaging cells. In addition, the vector includes a Rev-response element (RRE), which further increases viral titers by enhancing the transport of unspliced viral RNA out of the nucleus (4). Finally, pLVX-EF1α-DsRed-Monomer-C1 also contains a central polypurine tract/central termination sequence element (cPPT/CTS). During target cell infection, this element creates a central DNA flap that increases nuclear import of the viral genome, resulting in improved vector integration and more efficient transduction (5). In addition to lentiviral elements, pLVX-EF1α-DsRed-Monomer-C1 contains a puromycin resistance gene (Puror) under the control of the murine phosphoglycerate kinase (PGK) promoter (PPGK) for the selection of stable transductants. The vector also contains a pUC origin of replication and an E. coli ampicillin resistance gene (Ampr) for propagation and selection in bacteria.

质粒图谱



复溶方法

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 ℃.