



In addition to lentiviral elements, pLVX-DsRed-Monomer-C1 contains a puromycin resistance gene (Puro<sup>r</sup>) under the control of the murine phosphoglycerate kinase (PGK) promoter ( $P_{PGK}$ ) for the selection of stable transductants. The vector also contains a pUC origin of replication and an *E. coli* ampicillin resistance gene (Amp<sup>r</sup>) for propagation and selection in bacteria.

## Use

pLVX-DsRed-Monomer-C1 constitutively expresses your gene of interest from  $P_{CMVIE}$  when transduced into target cells. Before the vector can be transduced into cells, however, it must be transduced into 293T packaging cells with our Lenti-X™ HTX Packaging System (Cat. Nos. 631247 and 631249). This packaging system allows you to safely produce high titer, infectious, replication-incompetent, VSV-G pseudotyped lentiviral particles that can infect a wide range of cell types, including non-dividing and primary cells (4).

## Location of Features

- 5' LTR: 1–635
- PBS (primer binding site): 636–653
- $\Psi$  (packaging signal): 685–822
- RRE (Rev-response element): 1303–1536
- cPPT (central polypurine tract): 2028–2151
- $P_{CMVIE}$  (human cytomegalovirus immediate early promoter): 2185–2788
- DsRed-Monomer (*Discosoma* sp. red fluorescent protein monomer): 2816–3490
- MCS (multiple cloning site): 3504–3556
- $P_{PGK}$  (phosphoglycerate kinase promoter): 3580–4088
- Puro<sup>r</sup> (puromycin resistance gene): 4109–4708
- WPRE (woodchuck posttranscriptional regulatory element): 4722–5313
- 3' LTR: 5517–6153
- pUC origin of replication: 6623–7293 (complementary)
- Amp<sup>r</sup> (ampicillin resistance gene;  $\beta$ -lactamase): 7438–8434 (complementary)

## Selection of Stable Transfectants

- Selectable marker: plasmid confers resistance to puromycin.

## Propagation in *E. coli*

- Suitable host strains: DH5 $\alpha$ , DH10B and other general purpose strains.
- Selectable marker: plasmid confers resistance to ampicillin (100  $\mu$ g/ml) in *E. coli* hosts.
- *E. coli* replication origin: pUC
- Copy number: high

## Excitation and emission maxima of DsRed-Monomer

- Excitation maximum = 557 nm
- Emission maximum = 592 nm

## Notes:

The attached sequence file has been compiled from information in the sequence databases, published literature, and other sources, together with partial sequences obtained by Clontech. This vector has not been completely sequenced.

The viral supernatants produced by this lentiviral vector could contain potentially hazardous recombinant virus. Due caution must be exercised in the production and handling of recombinant lentivirus. Appropriate NIH, regional, and institutional guidelines apply.

## References

1. Zufferey, R. *et al.* (1999) *J. Virol.* **73**(4):2886–2892.
2. Cochrane, A. W. *et al.* (1990) *Proc. Natl. Acad. Sci. USA* **87**(3):1198–1202.
3. Zennou, V. *et al.* (2000) *Cell* **101**(2):173–185.
4. Wu, X. *et al.* (2000) *Mol. Ther.* **2**(1):47–55.

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