Product Data Sheet

pMXs-Puro Retroviral Vector

CATALOG NUMBER: RTV-012  STORAGE: -20°C

QUANTITY AND CONCENTRATION: 10 µg at 0.25 µg/µL in TE

Background
Retroviruses are efficient tools for delivering heritable genes into the genome of dividing cells. Cell Biolabs’ pMXs-Puro retroviral vector is based on Moloney murine leukemia virus (MMLV). The vector provides the viral package signal, transcription and processing elements, and MCS for cloning of a target gene. The viral env gene, produced by the package cell line, encodes the envelope protein, which determines the viral infectivity range. Transfection into a package cell line produces high-titer, replication-incompetent viruses. In addition to transfer and expression of exogenous genes in mammalian cells, recently, retroviruses have been used to express silencing RNAs (siRNA) to decrease the expression of target genes both in vitro and in vivo.

The vector contains the ampicillin-resistance gene, MMLV LTRs, package signal and MCS for cloning of your gene of interest (Figure 1).

![Schematic representation of pMXs-Puro retroviral vector](image)

Figure 1. Schematic representation of pMXs-Puro retroviral vector.

5’-MCS:
- Enzyme Sites: 5’-PacI, BamHI, EcoRI-3’
- MCS Sequence: TTAATTAAGGATCCCATGTTGGGTAGGTACCCGAATTCAAGCTTGATC

3’-MCS:

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• Enzyme Sites: 5’-EcoRI, XhoI, NotI-3’
• MCS Sequence:
  GGCGGAATTCAGCTGACGGCCGTCGCTACCATTACCAGTTGGTCTGGTGTCAAAA
  ATAATAAATAACCCGAGCCATGTCTGGCCGCTATTTCGCTAAGGAAATCCATTATG
  TACTATTTAAACTCGAGCGGCAGCCACATGGTGTCGAC---SV40---puro-GTCGAC---

  Note: For optimal expression, both 5’ MCS and 3’ MCS should be used to clone gene of interest and replace the stuffer sequence (partial LacZ) between them.

**Safety Consideration**

Remember that you will be working with samples containing infectious virus. Follow the recommended NIH guidelines for all materials containing BSL-2 organisms. Always wear gloves, use filtered tips and work under a biosafety hood.

**References**


**Recent Product Citations**


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This product is for RESEARCH USE ONLY; not for use in diagnostic procedures.

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