pMXs–Neo Retroviral Vector

CATALOG NUMBER:  RTV-011  
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-Neo 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 gene of interest (Figure 1).

![Diagram of pMXs-Neo Retroviral Vector](image)

**Figure 1.** Schematic representation of pMXs-Neo retroviral vector.

5’-MCS:
- Enzyme Sites: 5’-PacI, BamHI, EcoRI-3’
- MCS Sequence: TTAATTAAGGATCCCAAGTGGTGGAATTTCAAGCTTGATC
3’-MCS:
- Enzyme Sites: 5’-EcoRI, XhoI, NotI-3’
- MCS Sequence:
  GGCAGAATTCCAGCTGAGCGCGGGCTCGCTACCATTACCATCAGTGTGGGTCTGGTGTCAAAAA
  TAATAATACGAGCAGCGCCATGCTCTGCCCCTATTTCGCTAAAGGAATCCATTATGT
  ACTATTAAACTCGAGCCGGCGCCAGCACAGTGATGGTGAC---SV40---neo-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

License Information
This product is licensed from the University of Tokyo.

Warranty
These products are warranted to perform as described in their labeling and in Cell Biolabs literature when used in accordance with their instructions. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THIS EXPRESSED WARRANTY AND CELL BIOLABS DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR PARTICULAR PURPOSE. CELL BIOLABS’s sole obligation and purchaser’s exclusive remedy for breach of this warranty shall be, at the option of CELL BIOLABS, to repair or replace the products. In no event shall CELL BIOLABS be liable for any proximate, incidental or consequential damages in connection with the products.

This product is for RESEARCH USE ONLY; not for use in diagnostic procedures.
©2012-2019: Cell Biolabs, Inc. - All rights reserved. No part of these works may be reproduced in any form without permissions in writing.