

**pCL-10A1 Retrovirus Packaging Vector**

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**Catalog No.:** NBP2-29542**Contents:** 10 µg in 20 µl sterile water.**BACKGROUND:**

The pCL-10A1 Retrovirus Packaging Vector is a part of the RetroMax expression system (Cat# NBP2-29499) and has been designed to maximize recombinant-retrovirus titers in a simple, efficient, and flexible experimental system. By introducing a retroviral vector into a cell expressing retroviral proteins, retroviral particles (virions) are shed into the culture medium at the rate of 1 infectious particle/cell/day. Retrovirus tropism is determined at three levels. The first is simply a function of **viral envelope protein**, gp70. The envelope determines which cells the virus will enter. gp70 comes in three different flavors for gene therapy. The plasmid DNA can be amplified by transforming bacteria and growing them on LB/ampicillin (100 µg/ml) media.

**STORAGE:**

For long-term storage, store at -20°C. For amplification, transform a suitable *E. coli* host such as HB101 or DH-5α and plate on LB plates containing 50-µg/ml ampicillin. For plasmid DNA preparation start culture from a single colony in LB medium containing 100 µg/ml ampicillin.

**REFERENCES:**

1. Naviaux, RK, Costanzi, E, Haas, M and Verma, I. The pCL vector system: Rapid production of helper-free, high titer, recombinant retroviruses. *J. Virol* 70: 5701-5705 (1996).
2. Philippe Coulombe, Geneviève Rodier, Stéphane Pelletier, Johanne Pellerin, and Sylvain Meloche. Rapid Turnover of Extracellular Signal-Regulated Kinase 3 by the Ubiquitin-Proteasome Pathway Defines a Novel Paradigm of Mitogen-Activated Protein Kinase Regulation during Cellular Differentiation. *Molecular and Cellular Biology*, Vol. 23 (13) p. 4542-4558 (2003).

Ecotropic (usually) (MoMuLV)	Mouse and rat cells only (not human)
Amphotropic (from 4070A MuLV)	Most mammalian cells (but not hamster)
10A1 (MuLV)	Most mammalian cells (including hamster)