pCL-10A1 Retrovirus Packaging Vector

Catalog No.: 10047P

Contents: 10 µg in 20 µl 1x TE (10 mM Tris, pH 7.5, 1 mM EDTA)

BACKGROUND:
The pCL-10A1 packaging vector is a part of the RetroMax expression system (Cat#10040K and 10041K) 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 about 1 infectious particle/cell/day. Retrovirus tropism is determined at 3 levels. The first is simply a function of viral envelope protein, gp70. The envelope determines which cells the virus will enter. pCL-10A1 expresses 10A1 envelope protein that was isolated from a mouse infected with amphotropic MuLV (2,3). Retroviruses obtained by cotransfection with pCL-10A1 vector will infect most mammalian cells including hamster cells.

AMPLIFICATION: The plasmid DNA contains an ampicillin resistant gene. For large scale production, this plasmid may be amplified on LB plates containing 50 µg/ml ampicillin. The liquid cultures may be grown at 100 µg ampicillin/ml.

STORAGE:
For long-term storage, store at –20°C.

REFERENCES:

Specificity of different envelope proteins.

<table>
<thead>
<tr>
<th>Envelope Type</th>
<th>Host Cells</th>
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<tbody>
<tr>
<td>Ectotropic (usually) (MoMuLV)</td>
<td>Mouse and rat cells only (not human)</td>
</tr>
<tr>
<td>Amphotropic (from 4070A MuLV)</td>
<td>Most mammalian cells (but not hamster)</td>
</tr>
<tr>
<td>10A1 (MuLV)</td>
<td>Most mammalian cells (including hamster)</td>
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