

Packaging vectors

To produce virions, once your gene of interest is cloned into a viral vector (known as transfer vector), you need to use a packaging viral vector(s). Transfer vectors have been modified to reduce the hazardous level, and latest generations of transfer vectors are lacking of *gag*, *pol*, *env* viral genes. Packaging vectors provide all the viral proteins required for transcription and packaging of your expression cassette into recombinant viral particles.

pASSEMBLE™ Retroviral Packaging System

For a higher efficiency, titer and a versatile packaging of Retroviral transfer vectors



Includes:

ME0040

- 20 µL pASSEMBLE™ Ecotropic Retroviral Packaging Vector (50 ng/ µL)

ME0040 Plus

- 20 µL pASSEMBLE™ Ecotropic Retroviral Packaging Vector (50 ng/ µL)
- 0.2 mL CANFAST™ Transfection Reagent
- 20 µL eGFP Retroviral Transfer Control Vector (50 ng/ µL)
- 20 µL mCAT-1 Expression Vector (50 ng/ µL)

ME0042

- 20 µL pASSEMBLE™ Amphotropic Retroviral Packaging Vector (50 ng/ µL)

ME0042-Plus

- 20 µL pASSEMBLE™ Amphotropic Retroviral Packaging Vector (50 ng/ µL)
- 0.2 mL CANFAST™ Transfection Reagent
- 20 µL eGFP Retroviral Transfer Control Vector (50 ng/ µL)

ME0046

- 20 µL pASSEMBLE™ 10A1 Retroviral Packaging Vector (50 ng/ µL)

ME0046-Plus

- 20 µL pASSEMBLE™ 10A1 Retroviral Packaging Vector (50 ng/ µL)
- 0.2 mL CANFAST™ Transfection Reagent
- 20 µL eGFP Retroviral Transfer Control Vector (50 ng/ µL)



Description:

pASSEMBLE™ Retroviral Packaging System includes a unique packaging vector with *gag*, *pol* and *env* from different viruses conferring a tropism in the cell to be infected. pASSEMBLE™ Ecotropic Packaging System includes a packaging vector with *gp70* envelope genes from Moloney murine leukaemia virus (MoMLV). The *gp70* envelope glycoproteins of ecotropic MoMLV viruses bind to receptors that occur only on mouse and rat cells and on interspecies hybrid cells that contain mouse chromosome 5. In murine cells, the entry of this ecotropic virus is mediated by mCAT-1 receptor. Higher efficiency of transduction is obtained by infection of cells previously transfected with mCAT-1 expression vector.

pASSEMBLE™ Amphotropic Packaging System includes a packaging vector with *env* gene from 4070A murine leukaemia virus (MuLV) generating virus capable of infecting most mammalian cells except hamsters. To infect hamster cell lines, like CHO-K1 cells, it is necessary to use a packaging vector with 10A1 envelope gene from MuLV.

Advantages & Features:

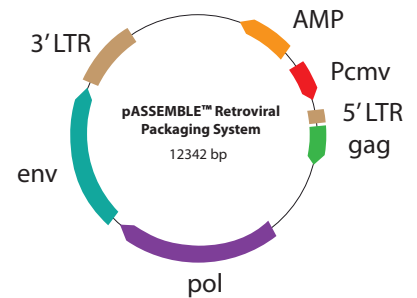
- ✓ Higher efficiency of transduction.
- ✓ High titer.
- ✓ Tropism versatility.

Applications:

- ✓ Packaging of Retroviral transfer vectors.

Related Products:

- FastCONTROL™ Dual Reporter Plasmids (p.27)
- pOnebyOne™ Mammalian Expression vectors (p.22)



Ordering info:

| Envelope gene | Packaging | Catalog Number | Size | Tropism |
|---------------|-------------|-----------------------|-------|--|
| gp 70 MoMLV | Ecotropic | ME0040 ME0040-Plus | 20 µl | Mouse and rat cell |
| 4070A MuLV | Amphotropic | ME0042 ME0042-Plus | 20 µl | Most mammalian cells (hamster cells are not included) |
| 10A1 MuLV | | ME0046 ME0046-Plus | 20 µl | Most mammalian cells (hamster cells are included) |

pASSEMBLE™ Lentiviral Packaging System

For third or higher generation of Lentiviral transfer vector

Ordering info:

| Cat No. | Size |
|---------------|-----------------|
| ME0044 | 20 rxn |
| ME0044 - Plus | 20 rxn + 0.2 mL |

Includes:

ME0044

- 20 µL pASSEMBLE™ Lentiviral Packaging System (50 ng/ mL)

ME0044-Plus

- 20 µL pASSEMBLE™ Lentiviral Packaging System (50 ng/ mL)
- 0.2 mL CANFAST™ Transfection Reagent
- 20 µL eGFP Lentiviral Transfer Control Vector (50 ng/ µL)



Related Products:

- FastCONTROL™ Dual Reporter Plasmids (p.27)
- pOnebyOne™ Mammalian expression vectors (p.22)

Description:

pASSEMBLE™ Lentiviral Packaging System includes an optimized mix of three vectors with sequences of *gag*, *pol* and *rev* genes from Human immunodeficiency virus (HIV-1) and the envelope gene from vesicular stomatitis virus (VSV-G).

VSV-G envelope confers a wide range of tropism as this glycoprotein binds to phospholipid receptor universally expressed in mammalian cells. This packaging system requires Lentiviral transfer vectors of 3rd generation or higher.

Advantages & Features:

- ✓ High titer.
- ✓ Tropism versatility.

Applications:

- ✓ Packaging of Lentiviral transfer vectors.