

Omega-E Packaging Cell Line

Catalogue number: 151463

Sub-type: Continuous

Images:

Contributor

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Institute: Cancer Research UK, London Research Institute: Lincoln's Inn Fields

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Omega-E Packaging Cell Line

Alternate name:

Class:

Conjugate:

Description: The Omega-E Packaging Cell Line is a helper-free packaging cell line & shuttle vector system enabling high-titer production of recombinant retroviral vectors for mammalian gene transfer, with significantly reduced probability of replication-competent retrovirus generation. The pBabe series of vectors represent a highly efficient retroviral based gene transfer system for stable expression within mammalian cells. They are derived from the Moloney murine leukemia virus (MMLV) and can be used to produce high titer viral stocks. Inserted genes are expressed from the MMLV Long Terminal Repeat, which has been proven to be more efficient than most internal promoters in a number of cell lines. To facilitate the introduction of multiple genes into a single cell the pBabe vectors are available with four dominant selectable markers: G418/Kanamycin, Hygromycin B, Bleomycin/bleomycin and Puromycin. The ability to express multiple genes should facilitate the study of biological phenomenon involving the interaction of multiple genes. Restriction maps and details of each of the constructs are available on request. A partner helper-free packaging cell line, Omega E, designed in conjunction with the pBabe vectors to reduce the risk of generation of wild type MMLV via homologous recombination events has also been developed. This should reduce the problems associated with the mobilisation and spread of defective vector proviruses.

Purpose:

Parental cell: NIH/3T3

Organism: Mouse

Tissue: Embryo

Model: Packaging

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties: Recombinant retroviral production

Production details: The Omega E and pBabe recombinant retroviral system utilises shuttle vectors with multiple drug selection markers (the pBabe vector series) for increased flexibility of gene transfer vector design, and a third generation, helper-free packaging cell line (Omega E) derived from mouse NIH 3T3 cell lines, enabling high-titer production of Moloney murine leukemia virus for use in mammalian gene transfer

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: pBabe vector

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:

Application notes:

Handling

Format: Frozen

Concentration:

Passage number:

Growth medium: For recommended growth and recombinant retrovirus production conditions, see Morgenstern & Land. 1990. Nucleic Acids Research. 18:3587-96. PMID: 2194165

Temperature:

Atmosphere:

Volume:

Storage medium:
Storage buffer:
Storage conditions:
Shipping conditions: Dry ice

Related tools

Related tools:

References

References: Sparmann et al. 2013. EMBO J. 32(11):1598-612. PMID: 23624931. ; The chromodomain helicase Chd4 is required for Polycomb-mediated inhibition of astroglial differentiation. ; Curtis et al. 2012. Mol Cell Biol. 32(7):1312-20. PMID: 22290435. ; The chromatin-remodeling enzymes BRG1 and CHD4 antagonistically regulate vascular Wnt signaling. ; Ramirez et al. 2009. Epigenetics. 4(8):532-6. PMID: 19923891. ; The Mi-2/NuRD complex: a critical epigenetic regulator of hematopoietic development, differentiation and cancer.