Plasmid SV-Ψ-MLV-env- (BEI catalog # 3422)

This plasmid, pSV-Ψ-MLV-env-, can produce high-titer murine leukemia virus (MLV) retroviral vectors.

Ψ -Moloney Murine Leukemia virus (MLV) DNA (from Richard Mann) was cloned into the SV40 expression vector pSV7d at the EcoRI site. The mouse flanking sequences present on either side of the provirus have not been sequenced. This construct is 13,966 base pairs including the insert; the insert is 11,606 base pairs. The cloning vector used to create pSV-Ψ-MLV-env-was pSV7d and the resulting vector is ampicillin resistant. This plasmid is used to produce MLV retroviral vectors using the method of Landau and Littman. In the original method, COS cells were transfected with this plasmid and an amphotropic MLV env vector. Higher virus titers can be obtained by transfecting 293 cells instead of COS cells, and with the VSV-G expression vector instead of A-MLV. Plasmids can be propagated in STBL2 cells and grown at 37°C. Larger plasmids may benefit from growth at 30°C. This construct may also be grown in other competent cells.

References

1. Landau et al. , https://pmc.ncbi.nlm.nih.gov/articles/PMC241381/?page=3

Technology ID

LAN02-07

Category

Doug Brawley

Authors

Nathaniel Landau, PhD

Learn more

Explore other available products at NYU TOV Licensing