possibility of producing viruses having infectious titers two to three times greater than those obtained in a conventionally used neutral medium.

In an aspect, there is provided a process for producing a lentivirus, optionally pseudotyped, characterized in that the host cells producing said virus are cultivated in a mildly acid medium, the pH of the medium being comprised between 5.8 and 6.2, the pH being more particularly of about 6.

In another aspect, there is provided a kit for applying the process as disclosed herein, comprising a mildly acid culture medium, or a culture medium accompanied by one or several solutions useful for bringing the pH of said medium to a mildly acid value comprised between 5.8 and 6.2, the pH being more particularly of about 6, the kit further comprising: (a) one or several suitable plasmids for producing the optionally pseudotyped lentivirus; and (b) suitable cells for producing said lentivirus.

In yet another aspect, there is provided a kit for applying the process as disclosed herein, comprising (i) means for applying said process and (ii) instructions to be followed for applying the process the kit comprising the following means (a) and (b), (a) and (c), (b) and (c) or (a) and (b) and (c):

(a) one or several suitable plasmids for producing the lentivirus, optionally pseudotyped;

(b) suitable cells for producing said lentivirus; and

(c) a mildly acid culture medium, or a culture medium accompanied by one or several solutions useful for bringing the pH of said medium to a mildly acid value comprised between 5.8 and 6.2, the pH being more particularly of about 6.

In a further aspect, there is provided a kit for applying the process as disclosed herein, comprising a culture medium accompanied by one or several solutions useful for bringing the pH of said medium to a mildly acid value comprised between 5.8 and 6.2, the pH being more particularly of about 6.

Therefore the object of the disclosure is the use of mildly acid conditions for producing an enveloped virus. More particularly, the disclosure relates to a process for producing an enveloped lentiviral vector, characterized in that the culture medium used for cultivating the host cells producing said vector is a mildly acid medium.

CLAIMS

1. A process for producing a lentivirus, optionally pseudotyped, characterized in that the host cells producing said lentivirus are cultivated in a mildly acid medium, the pH of the medium being comprised between 5.8 and 6.2, the pH being more particularly of about 6.

2. The process according to claim 1, wherein the lentivirus is pseudotyped with an envelope protein derived from a virus belonging to the family of rhabdoviridae, arenaviridae, togaviridae, filoviridae, retroviridae, coronaviridae, paramyxoviridae, flaviridae, orthomyxoviridae or baculoviridae.

3. The process according to claim 1 or 2, wherein the lentivirus is pseudotyped with an envelope glycoprotein selected from the envelope protein of the vesicular stomatitis virus (VSV-G), rabies virus, Mokola virus, lymphocyte choriomeningitis virus (LCMV), Ross River Virus (RRV), Sindbis virus, Semliki Forest Virus (SFV), Venezuelan equine encephalitis virus, West equine encephalitis virus, Ebola virus, Lassa virus, virus of avian leukosis (ALV), Rous Sarcoma Virus (RSV), ‚Jaagsiekte sheep retrovirus, different murine leukaemia viruses (MLV), modified Baboon Ape Endogenous Virus (BAEVTR), modified Gibbon Ape Leukaemia Virus (GALVTR), Human T–Lymphtrophic Virus (HTLV–1), human spumous virus, Maedi–Visna Virus (MMV), SaRS–Coronavirus, Sendai virus, human parainfluenza type 3 virus, Nipah virus, measles virus, hepatitis C virus (HCV), influenza virus and Autographa californica multiple nuclear polyhedrosis virus.

4. The process according to claim 3, the lentivirus being pseudotyped with an envelope protein selected from the VSV–G envelope protein or the GALVTR envelope protein.

transfer plasmid comprising an expression cassette of a transgene of interest, comprised between a lentiviral LTR–5' and a LTR–3' and one plasmid bearing an expression cassette of envelope glycoprotein(s).

10. A kit for applying the process according to any one of claims 1 to 9,

(a) one or several suitable plasmids for producing the lentivirus, optionally pseudotyped;

(b) suitable cells for producing said lentivirus; and

(c) a mildly acid culture medium, or a culture medium accompanied by one or several solutions useful for bringing the pH of said medium to a mildly acid value comprised between 5.8 and 6.2, the pH being more particularly of about 6.