

METHOD FOR PURIFICATION OF GMP-GRADE RETROVIRAL VECTOR
AND APPLICATION THEREOF

ABSTRACT OF THE DISCLOSURE

The invention discloses a method for purifying a retrovirus (retroviral vector),
5 comprising the following steps: A), microfiltrating a cell culture supernatant containing a
retrovirus to remove cell debris from the cell culture supernatant and obtain a micro-
filtered virus solution; B), treating the micro-filtered virus solution with a nuclease to
degrade host DNA residues into small DNA fragments, and obtain an enzyme-digested
virus solution; C), ultrafiltering the enzyme-digested virus solution such that the retrovirus
10 is retained in a retentate, collecting the retentate, and obtaining an ultrafiltrated virus
solution; and D), performing low speed centrifugation on the ultrafiltered virus solution to
precipitate the retrovirus, collecting the precipitate to obtain unsterilized virus. The
retrovirus product obtained by this method ensures the purity of the retrovirus solution,
and at the same time, the titer of the concentrated virus solution reaches 10^7 IP/ml, which
15 meets the downstream process requirements.