**Materials List for:**

# Genotypic Inference of HIV-1 Tropism Using Population-based Sequencing of V3

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URL: http://www.jove.com/video/2531/

## Materials

| Name | Company | Catalog Number | Comments |
|---|---|---|---|
| **RNA extraction using NucliSens easyMAG version 1.0** | | | |
| NucliSens easyMAG Magnetic Silica | bioMerieux | cat. # 280133 | (48 x 0.6 ml) |
| NucliSens easyMAG Lysis Buffer | bioMerieux | cat. # 280134 | (4 x 1000 ml) |
| NucliSens easyMAG Extraction Buffer 1 | bioMerieux | cat. # 280130 | (4 x 1000 ml) |
| NucliSens easyMAG Extraction Buffer 2 | bioMerieux | cat. # 280131 | (4 x 1000 ml) |
| NucliSens easyMAG Extraction Buffer 3 | bioMerieux | cat. # 280132 | (4 x 1000 ml) |
| NucliSens easyMAG version 1.0 | bioMerieux | | |
| Class II A2 biological safety cabinet | | | |
| **One-Step Reverse Transcriptase PCR and Second Round PCR** | | | |
| DEPC-treated water | Ambion | cat. # 9922 | |
| SuperScrip III One-Step RT-PCR System with Platinum Taq High Fidelty | Invitrogen | cat#12574-035 | Kit components used:<br><br>- SuperScript III RT/ Platinum Taq High Fidelty Enzyme Mix<br><br>- 2X Reaction Mix (a buffer containing 0.4mM of each dNTP, 2.4mM $MgSO_4$) |
| Expand High Fidelity PCR System | Roche Group | cat. # 1 759 078 | Kit components used:- Expand High Fidelity Buffer 10X conc. with 15 mM MgCl2 (lids labelled 2)- Expand HF PCR Enzyme Mix (3.5U/µl)- $MgCl_2$ Stock Solution (25mM) (lids labelled 4) |
| dNTPs: dATP, dGTP, dCTP, dTTP | Roche Group | cat. # 11969064001 | (100 mM) |
| Sucrose | Sigma-Aldrich | cat. # S0389-500G | |
| Bromophenol blue sodium salt | Sigma-Aldrich | cat.# B5525 | |
| Cresol Red | Sigma-Aldrich | cat.# 114472-5G | indicator grade |
| Thermocycler | | | |
| **Gel Electrophoresis** | | | |
| 50X TAE buffer | Invitrogen | cat. # 24710030 | (1000 ml) |
| SYBR Safe DNA gel stain | Invitrogen | cat. # S33102 | |
| Agarose (ultra pure) | Invitrogen | cat. # 15510-027 | |
| E-Gel Low Range Quantitative DNA Ladder | Invitrogen | cat. # 12373-031 | |

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|---|---|---|---|
| Reagent Grade Type II water | | | |
| Gel apparatus | | | |
| **Sequencing** | | | |
| ABI PRISM BigDye Terminator Cycle Sequencing Kit | Applied Biosciences | cat. # 4337458 | (25000 reactions) |
| Hi-Di Formamide | Applied Biosciences | cat. # 4311320 | |
| Sodium Acetate (NaOAc) | Sigma-Aldrich | cat. # S-2889 | |
| EDTA | Sigma-Aldrich | Cat.# 03690-100ML | 0.5M, pH=8.0 |
| TRIZMA Hydrochloride Buffer Solution | Sigma-Aldrich | cat. # T-2819 | 1 M, pH 9.0 |
| Magnesium Chloride ($MgCl_2$) | Sigma-Aldrich | cat. # M-1028 | 1 M |
| 95% Ethanol | | | |
| Running Buffer (10X) with EDTA | Applied Biosystems | cat. # 4335613 | 500 mL |
| Polymer Pop-7 (25mL) Or Polymer Pop-7 (10mL) | Applied Biosystems | cat. # 44363929 or cat. # 4352759 | |
| 3700/3730 BigDye Terminator v3.1 Sequencing Standard Kit | Applied Biosciences | Cat# 4336943 | |
| Thermocycler | | | |
| Centrifuge with plate holders | | | |
| 3730xl DNA Analyzer | Applied Biosciences | | |

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