MAYO CLINIC LABORATORIES

Test Definition: FFTRP

Trofile Co-Receptor Tropism Assay

Overview

Useful For

Detect HIV-1 coreceptor tropism; determine eligibility for CCR5 antagonist therapy such as maraviroc (Selzentry)

Method Name

Polymerase chain reaction (PCR) amplification and viral culture.

NY State Available

Yes

Specimen

Specimen Type

Plasma EDTA

Specimen Required

Specimen Type: Plasma
Container/Tube: Lavender-top (EDTA) or plasma preparation tube (PPT)
Specimen Volume: 3 mL
Collection Instructions: Draw blood in either PPT (pearl top) or lavender-top (EDTA) tubes.
Centrifuge specimen within six hours of collection. Remove plasma from cells immediately, and transfer specimen to a screw-capped, plastic vial. Freeze 3 mL of PPT plasma or EDTA plasma immediately, send specimen frozen.

To avoid delays in turnaround time when requesting multiple tests, please submit separate frozen specimens for each test requested.

RECOMMENDED:

1. Patient's most recent viral load
2. Viral load collection date

Note: 1. Intended to use only for patients with viral loads greater than or equal to 1000 copies/mL. For best results, viral loads should be confirmed within two weeks prior to submission for testing at Monogram.

2. Patient samples submitted <30 days apart are considered duplicate and will be cancelled.

Specimen Minimum Volume

1 mL

Reject Due To

Other	PPT not centrifuged; insufficient volume; heparinized plasma; non frozen specimens

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Plasma EDTA	Frozen	14 days	

Clinical & Interpretive

Reference Values

Interpretation

CCR5 Tropic (R5) HIV-1

Virus uses CCR5 to enter CD4+ cells.

CXCR4 Tropic (X4) HIV-1

Virus uses CXCR4 to enter CD4+ cells

DUAL/MIXED Tropic (D/M) HIV-1

Dual-tropic viruses can use either CCR5 or CXCR4 to enter CD4+ cells. Mixed-tropic populations contain viruses with two or more tropisms.

Non-reportable

Co-receptor tropism could not be determined by the Trofile assay. Common causes of a non-reportable result are viral load <1,000 copies/mL, reduced viral fitness, or compromised sample collection/handling.

Performance

Method Description

Co-receptor tropism is defined as an interaction of a virus with a specific co-receptor on the target cell. To gain entry into
CD4+ cells, HIV must bind to the cell surface CD4 receptor and to one of two co-receptors, CCR5 or CXCR4.

Trofile is a cell-based approach to determine a patientâ€™s HIV co-receptor tropism (or Tropotype). Trofile uses the complete gp160 coding region of the HIV-1 envelope protein ensuring that all of the determinants of tropism are tested. CLIA validation experiments demonstrate that Trofile is 100% sensitive at detecting 0.3% CXCR4-using minor variants.

This class of drugs binds to CCR5 and blocks CCR5-mediated HIV entry into host cells. Trofile is used to determine whether a CCR5 antagonist may be an appropriate drug for a patient. Several clinical trials on CCR5 antagonists have demonstrated the positive and negative predictive value of Trofile in clinical settings.

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Trofile Co-Receptor Tropism Assay

PDF Report
No

Day(s) Performed
Sunday through Saturday

Report Available
29 to 39 days

Performing Laboratory Location
Monogram Biosciences, Inc

Fees & Codes

Fees

- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

CPT Code Information
87999

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
FFTRP	Trofile Phenotypic Corecept Tropism	57182-8

Result ID	Test Result Name	Result LOINC® Value
Z1038	Tropotype Result	57182-8
Z1039	Note:	Not Provided
Z1040	Activity of CCR5 antag anticipated?	Not Provided