



# 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
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**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 patient'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.

**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	Troptype Result	57182-8
Z1039	Note:	Not Provided
Z1040	Activity of CCR5 antag anticipated?	Not Provided