



Antiretroviral Drug Resistance Report

Micropathology Lab Number:123456 **Date:** Monday, 1 January 2017

Your Patient/Lab Number: M123456

The following report summarizes apparent antiretroviral drug resistance. It is based upon an analysis* of protease and reverse transcriptase gene sequences of the HIV-1 virus amplified from the supplied specimen (see laboratory numbers above). Additional information detailing the HIV-1 subtype and a quality assessment of the sequence data is also included. The report utilises the following abbreviations: B,D,H,V,N = Standard IUPAC codes for ambiguous nucleotides, PR = Protease, PI = Protease Inhibitor, RT = Reverse Transcriptase, RTI = Reverse Transcriptase Inhibitor, TAMs = Thymidine Analogue-associated Mutations, SDRMs = Surveillance Drug Resistance Mutations.

* Analysis performed using the Stanford Genotypic Resistance Interpretation Algorithm Version 8.1.1

SUMMARY DATA

Sequence includes PR:	codons 1 - 99
Sequence includes RT:	codons 1 - 354
Subtype:	C (5.8%)
PR SDRMs:	None
RT SDRMs:	L74V, M184V

Note: HIV 'Subtype' & 'Clade' are synonymous terms

SEQUENCE QUALITY ASSESSMENT

OK

DRUG RESISTANCE INTERPRETATION

PI Major Resistance Mutations: None

PI Accessory Resistance Mutations: None

Other Mutations: I15V, G16E, M36I, R41K, H69K, L89M, I93L

Protease Inhibitors

atazanavir/r (ATV/r)	Susceptible
darunavir/r (DRV/r)	Susceptible
fosamprenavir/r (FPV/r)	Susceptible
indinavir/r (IDV/r)	Susceptible
lopinavir/r (LPV/r)	Susceptible
saquinavir/r (SQV/r)	Susceptible
tipranavir/r (TPV/r)	Susceptible

RT Comments

None

NRTI Resistance Mutations: L74V, M184V

NNRTI Resistance Mutations: None

Other Mutations: V35T, T39TA, T165I, K173A, Q174K, D177E, G196E, T200A, Q207E, R211K, V245Q, D250E, V254VA, A272P, L283I, V292I, I293V, L310LR, Q334H, G335D

Nucleoside Reverse Transcriptase Inhibitors

abacavir (ABC)	High-Level Resistance
zidovudine (AZT)	Susceptible
stavudine (D4T)	Susceptible
didanosine (DDI)	High-Level Resistance
emtricitabine (FTC)	High-Level Resistance
lamivudine (3TC)	High-Level Resistance
tenofovir (TDF)	Susceptible

Non-nucleoside Reverse Transcriptase Inhibitors

efavirenz (EFV)	Susceptible
etravirine (ETR)	Susceptible
nevirapine (NVP)	Susceptible
rilpivirine (RPV)	Susceptible

RT Comments

NRTI

- **L74V/I** cause high-level resistance to ddl and intermediate resistance to ABC.
- **M184V/I** cause high-level in vitro resistance to 3TC and FTC and low-level resistance to ddl and ABC. However, M184V/I are not contraindications to continued treatment with 3TC or FTC because they increase susceptibility to AZT, TDF and d4T and are associated with clinically significant reductions in HIV-1 replication.