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Patient Report

Patient Age/Gender: 15 hours Unknown

Specimen Collected: 22-Jun-21 15:54

HIV-1 Drug Resistance by NGS |Received: 22-Jun-21 15:54 Report/Verified: 22-Jun-21 16:07

Procedure	Result	Units	Reference Interval
HIV-1 Drug Resistance by NGS	See Note [f1 i1]		
EER HIV-1 Drug Resistance by NGS	See Note [f2]		

Result Footnote

f1: HIV-1 Drug Resistance by NGS

Integrase Strand Transfer Inhibitor Drug Class

Bictegravir,BIC	Susceptible
Dolutegravir,DTG	Susceptible
Elvitegravir,EVG	Susceptible
Raltegravir,RAL	Susceptible

IN drug resistance mutations identified: None

IN accessory resistance mutations identified: None

IN additional mutations identified: S17N, S39N, M50I, I72V, L101I, T112A, T122I, T124A, T125A, G163T, K173R, I191D, D253E

Protease Inhibitor Drug Class

Atazanavir,ATV	Susceptible
Darunavir,DRV	Susceptible
Fosamprenavir,FPV	Susceptible
Indinavir,IDV	Susceptible
Lopinavir,LPV	Susceptible
Nelfinavir,NFV	Susceptible
Saquinavir,SQV	Susceptible
Tipranavir,TPV	Susceptible

PR drug resistance mutations identified: None

PR accessory resistance mutations identified: None

PR additional mutations identified: K14R, L19I, N37S, L63S, V77I, V82I

Nucleoside Reverse Transcriptase Inhibitor Drug Class

Abacavir,ABC	Susceptible
Zidovudine,AZT	Low-Level Resistance
Stavudine,D4T	Low-Level Resistance
Didanosine,DDI	Potential Low-Level Resistance
Emtricitabine,FTC	Susceptible
Lamivudine,LMV	Susceptible
Tenofovir,TDF	Susceptible

NRTI drug resistance mutations identified: T215D

Non-nucleoside Reverse Transcriptase Inhibitor Drug Class

Doravirine,DOR	Potential Low-Level Resistance
Efavirenz,EFV	Intermediate Resistance
Etravirine,ETR	Susceptible
Nevirapine,NVP	High-Level Resistance

*=Abnormal, #=Corrected, C=Critical, f=Result Footnote, H-High, i-Test Information, L-Low, t-Interpretive Text, @=Performing lab

Result Footnote

f1: HIV-1 Drug Resistance by NGS

Rilpivirine,RPV Susceptible

NNRTI drug resistance mutations identified: Y188H

RT accessory resistance mutations identified: None

RT additional mutations identified: K64R, D177E, I202V, V245L, V245I, E248D, D250G, A272P, I293V, E312G, F346Y, G359S, K366R, A376S, T377M, K390R, E399D, A400T, V435M, V435T

HIVGenotyper software version: 1.0.0.0

Stanford HIV Drug Resistance Database Version: HIVDB_8.9-1

f2: EER HIV-1 Drug Resistance by NGS

Access ARUP Enhanced Report using the link below:

-Direct access: [redacted]

Test Information

i1: HIV-1 Drug Resistance by NGS

INTERPRETIVE INFORMATION: HIV-1 Drug Resistance by NGS

This assay predicts HIV-1 resistance to protease inhibitors, nucleoside reverse transcriptase inhibitors, non-nucleoside reverse transcriptase inhibitors and integrase inhibitors. The protease gene, integrase gene and the reverse transcriptase gene of the viral genome are sequenced using Next Generation Sequencing. Drug resistance is assigned using the Stanford hivdb database.

This test should be used in conjunction with clinical presentation and other laboratory markers. A patient's response to therapy depends on multiple factors, including patient adherence, percentage of resistant virus population, dosing, and drug pharmacology issues.

This test detects populations down to 10 percent of the total population which may account for resistance interpretation differences between methods. Some insertions or deletions may be difficult to detect using this software.

This test was developed, and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.