ARUP LABORATORIES
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Client: Example Client ABC123
123 Test Drive
Salt Lake City, UT 84108
UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB	4/26/1971
Gender:	Male
Patient Identifiers:	01234567890ABCD, 012345
Visit Number (FIN):	01234567890ABCD
Collection Date:	00/00/0000 00:00

Human Immunodeficiency Virus 1 (HIV-1) by Quantitative NAAT with Reflex to HIV-1 Drug Resistance by Next Generation Sequencing

ARUP test code 3000870

HIV-1 Qnt by NAAT (copies/mL)	7,130 cpy/mL
HIV-1 Qnt by NAAT (log copies/mL)	3.85 log cpy/mL HIV-1 Drug Resistance by Next Generation Sequencing will be added.
HIV-1 Qnt by NAAT Interp	**Detected** * **(Ref Interval: Not Detected)** INTERPRETIVE INFORMATION: HIV-1 by Quantitative NAAT, Plasma Normal range for this assay is "Not Detected". The quantitative range of this assay is 1.47-7.00 log copies/mL (30-10,000,000 copies/mL). An interpretation of "Not Detected" does not rule out the presence of inhibitors or HIV-1 RNA concentration below the level of detection of the assay. Care should be taken in the interpretation of any single viral load determination. The clinical significance of changes in HIV-1 RNA concentration has not been fully established; however, a change of 0.5 log copies/mL may be significant. This assay should not be used for blood donor screening, associated re-entry protocols, or for screening Human Cell, Tissues and Cellular Tissue-Based Products (HCT/P).

Human Immunodeficiency Virus 1 Drug Resistance by Next Generation Sequencing

ARUP test code 3003853

HIV-1 Drug Resistance by NGS	See Note

H=High, L=Low, *=Abnormal, C=Critical

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: E10D, E11D, V31I, V32I, M50T, I72V, I84M, L101I, K111R, I191D, G192W, V201I, K211N, L234I, R269K

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: G16E, R41K, R57K, I62V, L63T, T74S, V77I

Nucleoside Reverse Transcriptase Inhibitor Drug Class

Abacavir,ABC	Susceptible
Zidovudine,AZT	Susceptible
Stavudine,D4T	Susceptible
Didanosine,DDI	Susceptible
Emtricitabine,FTC	Susceptible
Lamivudine,LMV	Susceptible
Tenofovir,TDF	Susceptible

NRTI drug resistance mutations identified: None

Non-nucleoside Reverse Transcriptase Inhibitor Drug Class

Doravirine,DOR	Susceptible
Efavirenz,EFV	Susceptible
Etravirine,ETR	Susceptible
Nevirapine,NVP	Susceptible
Rilpivirine,RPV	Susceptible

NNRTI drug resistance mutations identified: None

RT accessory resistance mutations identified: None

RT additional mutations identified: V35T, K122P, D123A, I135R, I178L, R211K, V245D, V245A, E248T, A272P, T286A, Q334N, A360T, A376T, K390R, E399D, A400T, V435I

HIVGenotyper software version: 1.0.0.0

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

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.

EER HIV-1 Drug Resistance by NGS	See Note Authorized individuals can access the ARUP Enhanced Report using the following link:

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
HIV-1 Qnt by NAAT (copies/mL)	23-088-119256	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
HIV-1 Qnt by NAAT (log copies/mL)	23-088-119256	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
HIV-1 Qnt by NAAT Interp	23-088-119256	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
HIV-1 Drug Resistance by NGS	23-088-119256	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
EER HIV-1 Drug Resistance by NGS	23-088-119256	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

H=High, L=Low, *=Abnormal, C=Critical