MAYO CLINIC LABORATORIES

Test Definition: HIVDR

HIV-1 Genotypic Drug Resistance to Reverse Transcriptase, Protease, and Integrase Inhibitors, Plasma

Reporting Title: HIV-1 Genotypic Drug Resistance, P
Performing Location: Rochester

Ordering Guidance:

This test is intended for detection and identification of drug resistance-associated HIV-1 genotypic mutations in plasma specimens of individuals prior to or while receiving combination antiretroviral therapy.

Prior to requesting this test, patients must have a confirmed plasma HIV-1 RNA level (ie, viral load) of 1000 copies/mL or higher within the preceding 30 days. HIVQN / HIV-1 RNA Detection and Quantification, Plasma is available to provide this prerequisite test result. Alternately, if the patient's viral load is unknown, order HIQDR / HIV-1 RNA Quantification with Reflex to Genotypic Drug Resistance to Reverse Transcriptase, Protease, and Integrase Inhibitors, Plasma, which will perform viral load followed by genotype, if appropriate.

For initial diagnosis of HIV, order HIVDX / HIV-1 and HIV-2 Antigen and Antibody Diagnostic Evaluation, Plasma.

Additional Testing Requirements:

Shipping Instructions:

If shipment will be delayed for more than 24 hours, freeze plasma specimen at -70 degrees C (up to 60 days) until shipment on dry ice.

Necessary Information:

The following ask-at-order entry question must be answered at the time of test ordering (mark answer on the test request form if not ordering electronically):

HIV-1 RNA level copies/mL in last 30 days = *(select answer option)*
<1000
1000 to 1,000,000
1,000,001 to 10,000,000
>10,000,000

Note: Test requests for submitted specimens with less than 1000 copies/mL (not sufficient amount for testing), "No," or no response entered will be canceled.

Specimen Requirements:

Supplies: Sarstedt Aliquot Tube, 5 mL (T914)
Collection Container/Tube: Lavender top (EDTA)
Submission Container/Tube: Plastic vial
Specimen Volume: 2.2 mL
Collection Instructions:
1. Centrifuge blood collection tube and aliquot plasma into plastic vial per collection tube manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes).
2. Freeze aliquoted plasma for shipment.

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Additional Information: Specimens submitted for HIV-1 genotyping must contain 1000 copies/mL or more of HIV-1 RNA.

Forms:

If not ordering electronically, complete, print, and send a Microbiology Test Request (T732) with the specimen.

Specimen Type	Temperature	Time	Special Container
Plasma EDTA	Frozen (preferred)	60 days	
	Refrigerated	7 days	

Ask at Order Entry (AOE) Questions:

Test ID	Question ID	Description	Type	Reportable
HIVDR	HIRVL	HIV RNA level copies/mL < 30 days =: • < 1000 • 1000 to 1,000,000 • 1,000,001 to 10,000,000 • >10,000,000	Answer List	Yes

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
616052	HIV-1 Genotypic Drug Resistance, P	Alphanumeric		80689-3
616729	HIV-1 group M subtype	Alphanumeric		100984-4
616737	Nucleos(t)ide RT mutations	Alphanumeric		45175-7
616918	Reverse Transcriptase failed codons	Alphanumeric		100983-6
616738	Abacavir	Alphanumeric		30287-7
616739	Didanosine	Alphanumeric		30284-4
616740	Emtricitabine	Alphanumeric		41402-9
616741	Lamivudine	Alphanumeric		30283-6
616742	Stavudine	Alphanumeric		30286-9
616743	Tenofovir	Alphanumeric		41396-3
616744	Zidovudine	Alphanumeric		30282-8
616745	Nonnucleoside RT mutations	Alphanumeric		45176-5
616746	Doravirine	Alphanumeric		91897-9
616747	Efavirenz	Alphanumeric		30291-9
616748	Etravirine	Alphanumeric		52749-9
616749	Nevirapine	Alphanumeric		30289-3
616750	Rilpivirine	Alphanumeric		68463-9
616751	Protease Mutations	Alphanumeric		33630-5
616919	Protease failed codons	Alphanumeric		100985-1

616752	Atazanavir + Ritonavir	Alphanumeric		49618-2
616753	Darunavir + Ritonavir	Alphanumeric		49630-7
616754	Fosamprenavir + Ritonavir	Alphanumeric		51409-1
616755	Indinavir + Ritonavir	Alphanumeric		49619-0
616756	Lopinavir + Ritonavir	Alphanumeric		42000-0
616757	Nelfinavir	Alphanumeric		30294-3
616758	Saquinavir + Ritonavir	Alphanumeric		49621-6
616759	Tipranavir + Ritonavir	Alphanumeric		49622-4
616760	Integrase mutations	Alphanumeric		61199-6
616920	Integrase failed codons	Alphanumeric		100986-9
616761	Bictegravir	Alphanumeric		90080-3
616762	Cabotegravir	Alphanumeric		96566-5
616763	Dolutegravir	Alphanumeric		72857-6
616764	Elvitegravir	Alphanumeric		72526-7
616765	Raltegravir	Alphanumeric		72525-9
HIRVL	HIV RNA level copies/mL <30 days =	Alphanumeric		89543-3

LOINC® and CPT codes are provided by the performing laboratory.

Supplemental Report:

No

CPT Code Information:

0219U

Reference Values:

An interpretive report will be provided.