



LABORATORIES

Patient: [REDACTED]
DOB: [REDACTED] Age: 23 Sex: F
Patient Identifiers: [REDACTED]
Visit Number (FIN): [REDACTED]

Client: [REDACTED]
Physician: [REDACTED]

ARUP Test Code: 0092399
Collection Date: 01/24/2025
Received in lab: 01/25/2025
Completion Date: 02/23/2025

HIV PhenoSense GT

TEST INFORMATION

Test performed at Monogram Biosciences.

For clinical utility and more information on interpreting this report, please visit
<http://www.monogrambio.com/hiv/resistance-testing/combined-phenotypegenotype/phenosense-gt>.

PATIENT REPORT

Patient's results from Monogram Biosciences continue on following page(s).



Patient: [REDACTED]
ARUP Accession: 25-024-115283

PhenoSense GT[®]

Combination HIV-1 Drug Resistance Assay

ARUP
500 Chipeta Way Attn: Referrals MC 233
Salt Lake City, UT 84108
USA

Client: [REDACTED]
Phone: (800)242-2787

Project: [REDACTED]
Fax: (801)584-5132



Weidong Huang, MD, Medical Director
345 Oyster Point Blvd
South San Francisco, CA 94080 - Tel: (800) 777-0177

Patient Name: [REDACTED]	DOB: [REDACTED]	Patient ID/Medical Record #	Gender: F	Monogram Accession #
Date Collected: 24-JAN-2025 12:30	Date Received: 28-JAN-2025 09:41 PT	Date Reported: 17-FEB-2025 11:47 PT	Mode: F,W,X	Report Status: FINAL
Referring Physician: [REDACTED]	Reference Lab ID/Order #: 25-024-115283			
Comments:	HIV-1 Subtype: B			

	DRUG			PHENOSENSE [™] SUSCEPTIBILITY			Evidence of Susceptibility		Net Assessment	
	Generic Name	Brand Name	Cutoffs (Lower - Upper)	Fold Change	Increasing	Decreasing	Pheno Sense	Gene Seq		
NRTI	Abacavir	Ziagen	(4.5 - 6.5)	1.69			Y	Y	Sensitive	
	Didanosine	Videx	(1.3 - 2.2)	1.00			Y	P	Partially Sensitive	1
	Emtricitabine	Emtriva	(3.5)	41			N	N	Resistant	
	Lamivudine	Epivir	(3.5)	75			N	N	Resistant	
	Stavudine	Zerit	(1.7)	0.29			Y	Y	Sensitive	3
	Zidovudine	Retrovir	(1.9)	0.15			Y	Y	Sensitive	3
	Tenofovir	Viread	(1.4 - 4)	0.37			Y	Y	Sensitive	3
NRTI Mutations			M184M/V							

NNRTI	Delavirdine	Rescriptor	(6.2)	12			N	N	Resistant	
	Doravirine	Pifeltro	(3)	0.60			Y	Y	Sensitive	
	Efavirenz	Sustiva	(3)	4.94			N	N	Resistant	
	Etravirine	Intelence	(2.9 - 10)	0.59			Y	Y	Sensitive	
	Nevirapine	Viramune	(4.5)	13			N	N	Resistant	
	Rilpivirine	Edurant	(2)	0.54			Y	Y	Sensitive	
NNRTI Mutations			V90I, K103N							

PI	Atazanavir	Reyataz / r ⁺	(5.2)	0.80			Y	Y	Sensitive	
	Darunavir	Prezista / r ⁺	(10 - 90)	0.80			Y	Y	Sensitive	
	Fosamprenavir	Lexiva / r ⁺	(4 - 11)	0.83			Y	Y	Sensitive	
	Indinavir	Crixivan / r ⁺	(10)	0.83			Y	Y	Sensitive	
	Lopinavir	Kaletra [†]	(9 - 55)	0.65			Y	Y	Sensitive	
	Nelfinavir	Viracept	(3.6)	1.34			Y	Y	Sensitive	
	Ritonavir	Norvir	(2.5)	1.07			Y	Y	Sensitive	
	Saquinavir	Invirase / r ⁺	(2.3 - 12)	0.94			Y	Y	Sensitive	
	Tipranavir	Aptivus / r ⁺	(2 - 8)	1.00			Y	Y	Sensitive	
PI Mutations			none							

▮ Lower Clinical Cutoff (in bold) ▮ Hypersusceptibility Cutoff ■ Sensitive Y Evidence of Drug Sensitivity
 ▮ Upper Clinical Cutoff (in bold) ▮ Cutoff ▨ Partially Sensitive P Evidence of Partial Drug Sensitivity
 ▮ Biological Cutoff ■ Resistant N Evidence of Drug Resistance

Report Version: 36

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ARUP LABORATORIES | 800-522-2787 | aruplab.com
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Jonathan R. Genzen, MD, PhD, Laboratory Director

Patient: [REDACTED]
ARUP Accession: 25-024-115283

Chart continues on following page(s)

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Weidong Huang, MD, Medical Director
345 Oyster Point Blvd
South San Francisco, CA 94080 - Tel: (800) 777-0177

Patient Name: [REDACTED]	Date Collected: 24-JAN-2025 12:30	Monogram Acc#: [REDACTED]	Status: FINAL
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Patient-Specific Results

Drugs	ABC	ddI	FTC	3TC	d4T	ZDV	TFV	DLV	DOR	EFV	ETR
IC50(μM)	2.77	3.88	24.39	129.08	0.22	0.005	0.267	0.4766	0.00261	0.0269	0.001528
Drugs	NVP	RPV	ATV	DRV	AMP	IDV	LPV	NFV	RTV	SQV	TPV
IC50(μM)	1.063	0.0005	0.00282	0.000294	0.004	0.0046	0.0019	0.0076	0.0139	0.0026	0.041

Combination Phenotype/Genotype Net Assessment

	SENSITIVE	PARTIALLY SENSITIVE	RESISTANT
NRTI	Abacavir Tenofovir	Didanosine	Emtricitabine Lamivudine
	Stavudine Zidovudine		
NNRTI	Doravirine Rilpivirine	Etravirine	Delavirdine Nevirapine
			Efavirenz
PI	Atazanavir / r	Darunavir / r	
	Fosamprenavir / r	Indinavir / r	
	Lopinavir / r	Nelfinavir	
	Ritonavir	Saquinavir / r	
	Tipranavir / r		

Complete List of Mutations Detected

RT: V60I, V90I, A98S, Q102K, K103N, K122E, D123E, I135V, C162S, Q174R, M184M/V, G196E, T200A, R211K, I244I/V, V245V/M, D250D/E, R277K, T286A

PR: L19T, R41K, L63P, V77I, I93L

Phenotype / Genotype Comments (clinical significance may vary)

- Mixture:** Mixtures detected at resistance-associated position(s); minor populations with decreased susceptibility may be present and may increase in the presence of drug pressure.
- IC50 reduced:** Phenotypic measurement reflects possible enhanced susceptibility due to M184I or V.



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