HIVDB 9.5.1 (2023-11-05) Drug resistance interpretation: PR

PI Major Mutations: None PI Accessory Mutations: None

PR Other Mutations: V110 - T12C - 113\* - K14\* - 115N - G16R - Q18T - E35D - M36I - R41K - K45R - R57K - L63T - E65K - H69K - L89M

#### Protease Inhibitors

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

HIVDB 9.5.1 (2023-11-05) Mutation scoring: PR

No drug resistance mutations were found for Pl.

HIVDB 9.5.1 (2023-11-05) Drug resistance interpretation: RT

NRTI Mutations: K65R • V75M • M184V • K219N NNRTI Mutations: K103N • V106I • V179T • G190A

E6N • V8I • V35T • V60I • S68K • K122E • D123N • I135T • K173L • Q174K • D177E • T200A • I202V • Q207A • R211S • K238X • V245Q • P247X • Δ263-264 • W266\* • A267M • S268G • Q269S • I270Q • Y271F • A272M • G273Q • I274D • Q278H • L279W • K281X • T286A • L289P • T290N • E291R • V292R • I293W RT Other Mutations:

#### Muclansida Davarsa Transcrintasa Inhihitara

# Non-nucleoside Deverse Transcrintase Inhibitors

Nucleoside Reverse Transcriptase Inhibitors		Non-nucleoside R	Non-nucleoside Reverse Transcriptase Infilbit	
abacavir (ABC)	High-Level Resistance	doravirine (DOR)	Potential Lov	
zidovudine (AZT)	Susceptible	efavirenz (EFV)	High-Level Re	
stavudine (D4T)	High-Level Resistance	etravirine (ETR)	Low-Level Res	
didanosine (DDI)	High-Level Resistance	nevirapine (NVP)	High-Level Re	
emtricitabine (FTC)	High-Level Resistance	rilpivirine (RPV)	Low-Level Res	
lamivudine (3TC)	High-Level Resistance			

## RT comments

tenofovir (TDF)

## NRTI

- K65R confers intermediate reductions in susceptibility to TDF, ABC, and 3TC/FTC. It increases AZT susceptibility. In NRTI-experienced, INSTI-naive patients receiving TDF+3TC+DTG, there is a risk of emergent DTG resistance that does not arise in NRTI-naive patients receiving TDF+3TC+DTG.
- V75T/M/A/S are nonpolymorphic accessory NRTI-selected mutations. They appear to have minimal phenotypic effects on AZT, ABC, and TDF.
- M184V/I cause high-level in vitro resistance to ATC and FTC and low/intermediate resistance to ABC (3-fold reduced susceptibility).
  M184V/I are not contraindications to continued treatment with 3TC or FTC because they increase susceptibility to AZT and TDF and are associated with clinically significant reductions in HIV-1 replication.
- K219E/Q/N/R are accessory TAMS that usually occur in combination with multiple other TAMs.

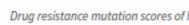
Intermediate Resistance

### NNRTI

- K103N is a non-polymorphic mutation that confers high-level reductions in NVP and EFV susceptibility. It is the most commonly transmitted DRM.
- V106I occurs in 1% to 2% of viruses from untreated persons. It contributes to reduced NNRTI susceptibility only in combination with other NNRTI-resistance mutations. It is commonly selected in persons receiving DOR in combination with mutations at position 227.
- V179T is a rare non-polymorphic mutation occasionally selected in persons receiving NNRTIs. It is associated with minimal, if any, reduction in ETR and RPV susceptibility.
- G190A is a non-polymorphic mutation that causes high-level resistance to NVP and intermediate resistance to EFV. It does not significantly reduce susceptibility to RPV, ETR, or DOR.
- This virus is predicted to have low-level reduced susceptibility to RPV. The use of the combination of CAB/RPV should be considered to be relatively contraindicated.

Drug	resistance	mutation	scores	of NRTI:	

Drug resistance mutation scores of NRTI:					Download CSV		
Rule	ABC \$	AZT \$	D4T ÷	DDI 🕏	FTC ÷	зтс ≑	TDF 🗢
K65R	45	-10	60	60	30	30	50
M184V	15	-10	-10	10	60	60	-10
K219N	5	10	10	5	0	0	5
<u>V75M</u>	0	10	30	15	0	0	0
Total	65	0	90	90	90	90	45



Drug resista	ince mutatioi	Download CSV			
Rule	DOR \$	EFV \$	ETR \$	NVP ≑	RPV \$
<u>V106I</u>	10	0	10	10	10
K103N	0	60	0	60	0
G190A	0	45	10	60	15
Total	10	105	20	130	25