

Drug resistance interpretation: PR

HIVDB 9.5.1 (2023-11-05)

PI Major Mutations:None

PI Accessory Mutations:[L33F](#) 100%
seen 1,888

PR Other Mutations:[I13V](#) 100%
seen 5,321 • [M36I](#) 100%
seen 1,888 • [P39S](#) 100%
seen 7,874 • [R41K](#) 100%
seen 1,772 • [R57K](#) 100%
seen 6,282 • [L63H](#) 100%
seen 4,812 • [I64L](#) 100%
seen 4,812 • [H69K](#) 100%
seen 4,711 • [K70R](#) 100%
seen 4,711 • [I72T](#) 100%
seen 4,837 • [L89M](#) 100%
seen 5,285

Protease Inhibitors

atazanavir/r (ATV/r)

Susceptible

darunavir/r (DRV/r)

Susceptible

fosamprenavir/r (FPV/r)

Potential Low-Level Resistance

indinavir/r (IDV/r)

Susceptible

lopinavir/r (LPV/r)

Susceptible

nelfinavir (NFV)

Potential Low-Level Resistance

saquinavir/r (SQV/r)

Susceptible

tipranavir/r (TPV/r)

Potential Low-Level Resistance

PR comments

Accessory

- [L33F](#) is a relatively non-polymorphic accessory mutation selected by each of the PIs. In combination with other PI-resistance mutations, it is associated with reduced susceptibility to LPV, ATV, and DRV.

Mutation scoring: PR

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Drug resistance mutation scores of PI:

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Rule	ATV/r	DRV/r	FPV/r	IDV/r	LPV/r	NFV	SQV/r	TPV/r
L33F	5	5	10	5	5	10	5	10

Drug resistance interpretation: RT

HIVDB 9.5.1 (2023-11-05)

NRTI Mutations:None

NNRTI Mutations:None

RT Other Mutations:[E6K](#) 100%
seen 2,234 • [K11A](#) 100%
seen 2,236 • [V35T](#) 100%
seen 2,236 • [E514D](#) 100%
seen 1,811 • [S519N](#) 100%
seen 4,384 • [Q524K](#) 100%
seen 4,352 • [K527R](#) 100%
seen 4,892 • [E529D](#) 100%
seen 15,623 • [A534S](#) 100%
seen 6,827 • [L551I](#) 100%
seen 8,328 • [A554S](#) 100%
seen 8,328

Nucleoside Reverse Transcriptase Inhibitors		Non-nucleoside Reverse Transcriptase Inhibitors	
abacavir (ABC)	Susceptible	doravirine (DOR)	Susceptible
zidovudine (AZT)	Susceptible	efavirenz (EFV)	Susceptible
stavudine (D4T)	Susceptible	etravirine (ETR)	Susceptible
didanosine (DDI)	Susceptible	nevirapine (NVP)	Susceptible
emtricitabine (FTC)	Susceptible	rilpivirine (RPV)	Susceptible
lamivudine (3TC)	Susceptible		
tenofovir (TDF)	Susceptible		

Mutation scoring: RT

HIVDB 9.5.1 (2023-11-05)

No drug resistance mutations were found for NRTI.

No drug resistance mutations were found for NNRTI.

Drug resistance interpretation: IN

HIVDB 9.5.1 (2023-11-05)

INSTI Major Mutations:[G118R](#) 100%
seen 53,286

INSTI Accessory Mutations:None

IN Other Mutations:[K14R](#) 100%
seen 11,246 • [S17N](#) 100%
seen 11,179 • [M50L](#) 100%
seen 15,386 • [E96D](#) 100%
seen 10,340 • [L101I](#) 100%
seen 9,397 • [T112M](#) 100%
seen 9,580 • [T124S](#) 100%
seen 9,494 • [V201I](#) 100%
seen 10,714 • [K211R](#) 100%
seen 11,080 • [L234I](#) 100%
seen 11,396 • [N254S](#) 100%
seen 11,287 • [S255G](#) 100%
seen 11,286 • [S283G](#) 100%
seen 11,088

Integrase Strand Transfer Inhibitors

bictegravir (BIC)	Intermediate Resistance
cabotegravir (CAB)	High-Level Resistance
dolutegravir (DTG)	Intermediate Resistance
elvitegravir (EVG)	High-Level Resistance
raltegravir (RAL)	High-Level Resistance

IN comments

Major

- [G118R](#) is a nonpolymorphic mutation reported in a significant proportion of persons with VF and emergent HIVDR in persons receiving a DTG-containing regimen. It has occasionally been reported in persons receiving other INSTIs. It is associated with 5-10-fold reduced susceptibility to RAL, EVG, DTG and CAB, and 2-3 fold reduced susceptibility to BIC.
- There is evidence for intermediate **DTG** resistance. If **DTG** is used, it should be administered twice daily.

Drug resistance mutation scores of INSTI:

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Rule	BIC ↕	CAB ↕	DTG ↕	EVG ↕	RAL ↕
<u>G118R</u>	30	60	30	60	60