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

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PI Major Mutations: None
PI Accessory Mutations: None

PR Other Mutations: T12M • I13\* • K14\* • E21X • E35D • M36I • R41K • R57K • L63P • H69K • K70R • L89M

### Protease Inhibitors

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

Mutation scoring: PR

No drug resistance mutations were found for Pl.

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

NRTI Mutations: M184V

NNRTI Mutations: K101H • G190A • F227I

RT Other Mutations: K11T - K20R - V21I - V35T - T39R - K122E - D123N - I135T - I142T - K173S - D177G - V179I - Q207N - R211X - Q222H - K223Q - E224K - P225N - L228S - P236S - D237\* - K238Q - V245Q - P247Q - E248T - K249R - D250E - S251L - W252T - T253V - V254M - N255I - D256Y - I257R

## Nucleoside Reverse Transcriptase Inhibitors

abacavir (ABC)

zidovudine (AZT)

stavudine (D4T)

didanosine (DDI)

emtricitabine (FTC)

Low-Level Resistance

Susceptible

Potential Low-Level Resistance

High-Level Resistance

lamivudine (3TC) High-Level Resistance
tenofovir (TDF) Susceptible

Non-nucleoside Reverse Transcriptase Inhibitors

doravirine (DOR) High-Level Resistance
efavirenz (EFV) High-Level Resistance
etravirine (ETR) Low-Level Resistance
nevirapine (NVP) High-Level Resistance
rilpivirine (RPV) Low-Level Resistance

#### RT comments

# NRTI

• M184V/I cause high-level in vitro resistance to 3TC 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.

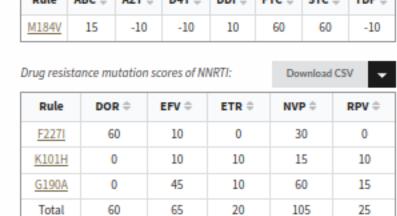
# NNRTI

- K101H is a non-polymorphic accessory mutation selected by NVP, EFV and ETR. When present with other NNRTI-resistance mutations, it contributes reduces susceptibility to these NNRTIs.
- 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.
- F227L is a non-polymorphic mutation that usually occurs in combination with V106A. It is selected in vivo and in vitro with both NVP and DOR. In this context it is associated with high-level reductions in NVP and DOR.
   F227L is a non-polymorphic mutation that usually occurs in combination with V106A. It is selected in vitro by DOR.

## Other

- . V179I is a polymorphic mutation that is frequently selected in persons receiving ETR and RPV. However, it has little, if any, direct effect on NNRTI susceptibility.
- P225H is a non-polymorphic EFV-selected mutation that usually occurs in combination with K103N. The combination of P225H and K103N synergistically reduces NVP, EFV and DOR susceptibility. P225N is a highly unusual mutation at this position.
- P236L is a rare mutation selected commonly by DLV, which appears to have little if any effect on current NNRTIs. P236S is a highly unusual mutation at this position.
- K238T/N are uncommon non-polymorphic mutations selected in persons receiving NVP and EFV usually in combination with K103N. Alone, K238T/N appear to have minimal effects on NNRTI susceptibility. K238Q is a highly unusual mutation at this position.
- 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.

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RPV

15

25