

Drug resistance interpretation: PR

PI Major Mutations:

PI Accessory Mutations:

PR Other Mutations:

None

None

K20R 10%
seen:32,842 • E35D 100%
seen:52,202 • M36I 100%
seen:52,202 • R41K 10%
seen:27,342 • R57K 10%
seen:26,747 • H69K 10%
seen:25,236 • V77I 10%
seen:22,800 • L89M 100%
seen:26,552

Protease Inhibitors

atazanavir/r (ATV/r)

Susceptible

darunavir/r (DRV/r)

Susceptible

fosamprenavir/r (FPV/r)

Susceptible

indinavir/r (IDV/r)

Susceptible

lopinavir/r (LPV/r)

Susceptible

nelfinavir (NFV)

Susceptible

saquinavir/r (SQV/r)

Susceptible

tipranavir/r (TPV/r)

Susceptible

PR comments

Other

- K20R is a highly polymorphic PI-selected accessory mutation that increases replication fitness in viruses with PI-resistance mutations.

Mutation scoring: PR

HMDB 9.5.1 (2023-11-05)

No drug resistance mutations were found for PI.

Drug resistance interpretation: RT

HMDB 9.5.1 (2023-11-05)

NRTI Mutations:

NNRTI Mutations:

RT Other Mutations:

None

None

K20R 10%
seen:32,772 • V35T 10%
seen:4,522 • T39Q 10%
seen:402 • E40D 10%
seen:705 • V60I 100%
seen:538 • K122E 10%
seen:524 • D123N 10%
seen:522 • I135T 100%
seen:482 • K173S 100%
seen:533 • Q174K 100%
seen:529 • D177E 1%
seen:523 • V179I 100%
seen:523 • T200A 10%
seen:382 • Q207A 100%
seen:149 • R211S 10%
seen:111 • F214L 10%
seen:322 • A554S 10%
seen:1847

Nucleoside Reverse Transcriptase Inhibitors

abacavir (ABC)

Susceptible

zidovudine (AZT)

Susceptible

stavudine (D4T)

Susceptible

didanosine (DDI)

Susceptible

emtricitabine (FTC)

Susceptible

lamivudine (3TC)

Susceptible

tenofovir (TDF)

Susceptible

Non-nucleoside Reverse Transcriptase Inhibitors

doravirine (DOR)

Susceptible

efavirenz (EFV)

Susceptible

etravirine (ETR)

Susceptible

nevirapine (NVP)

Susceptible

rilpivirine (RPV)

Susceptible

RT comments

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.

Mutation scoring: RT

HMDB 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

HMDB 9.5.1 (2023-11-05)

INSTI Major Mutations:

INSTI Accessory Mutations:

IN Other Mutations:

None

None

D6DN 10.70%
seen:1237 R 1.04% • K14R 10%
seen:1982 • A21T 10%
seen:1823 • N27D 10%
seen:1938 • V31I 100%
seen:1,128 • E35EK 10.70%
seen:1,276 R 2.29% • M50I 100%
seen:12,242 • E69EK 10.77%
seen:172 R 2.29% • G70GE 10.57%
seen:677 R 1.04% • I113V 10%
seen:12,642 • T124A 100%
seen:12,532 • T125A 100%
seen:12,532 • V126F 10%
seen:2349 • G134N 10%
seen:5,242 • I135V 100%
seen:5,242 • K136Q 10%
seen:6,242 • V201I 100%
seen:12,584 • I208M 10%
seen:12,592 • N222K 10%
seen:12,523 • L234I 10%
seen:6,249 • S255D 10%
seen:1,208 • D275DG 10.70%
seen:12,201 R 2.29% • S283G 100%
seen:12,206

Integrase Strand Transfer Inhibitors

bictegravir (BIC)

Susceptible

cabotegravir (CAB)

Susceptible

dolutegravir (DTG)

Susceptible

elvitegravir (EVG)

Susceptible

raltegravir (RAL)

Susceptible

IN comments

Other

- M50I is a highly polymorphic mutation, which has a prevalence of 3% to 34% in INSTI-naïve persons depending on subtype. It has been selected in vitro by DTG and BIC in combination with R263K. It may contribute to reduced DTG and CAB susceptibility in combination with R263K.

Mutation scoring: IN

HMDB 9.5.1 (2023-11-05)

No drug resistance mutations were found for INSTI.