

PI Major Mutations:None

PI Accessory Mutations:None

PI Other Mutations:

R41K100%
seen:35,008

 •

L63P100%
seen:24,701

 •

E65D100%
seen:11,007

 •

K70R100%
seen:11,114

 •

I72IV100%
seen:12,126

 •

V77I100%
seen:9,395

 •

I93L100%
seen:4,734

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

No drug resistance mutations were found for PI.

NRTI Mutations:

M184I100%
seen:12,001

NNRTI Mutations:

K103N100%
seen:1,802

RT Other Mutations:

V35T100%
seen:1,512

 •

V60I100%
seen:1,348

 •

V90I100%
seen:1,725

 •

K101Q100%
seen:1,785

 •

K122E100%
seen:1,362

 •

I142T100%
seen:1,782

 •

Q174QL100%
seen:1,743

 •

D177E100%
seen:1,375

 •

I178L100%
seen:1,175

 •

V179VI100%
seen:1,343

 •

Q207E100%
seen:1,047

 •

R211K100%
seen:1,087

 •

V245K100%
seen:1,254

 •

D250E100%
seen:1,088

 •

A272P100%
seen:1,177

 •

K277R100%
seen:1,107

 •

L282C100%
seen:1,062

 •

I293V100%
seen:712

 •

P294T100%
seen:712

 •

E297N100%
seen:712

 •

L301M100%
seen:652

 •

K311R100%
seen:592

 •

V317VA100%
seen:582

 •

Q509H100%
seen:107

 •

K527N100%
seen:582

 •

A534S100%
seen:618

 •

A554N100%
seen:623

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

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

- K103N is a non-polymorphic mutation that confers high-level reductions in NVP and EFV susceptibility. It is the most commonly transmitted DRM.

Other

- V90I is a polymorphic accessory mutation weakly selected by each of the NNRTIs. It is associated with minimal, if any, detectable reduction in NNRTI susceptibility.
- K101Q is a relatively non-polymorphic mutation that is weakly selected in persons receiving NVP and EFV. It is of uncertain phenotypic and clinical significance.
- 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.

Drug resistance mutation scores of NRTI:

Download CSV

Rule	ABC	AZT	D4T	DDI	FTC	3TC	TDF
M184I	15	-10	-10	10	60	60	-10

Drug resistance mutation scores of NNRTI:

Download CSV

Rule	DOR	EFV	ETR	NVP	RPV
K103N	0	60	0	60	0

INSTI Major Mutations:None

INSTI Accessory Mutations:None

IN Other Mutations:

S17N100%
seen:402

 •

I72IV100%
seen:177

 •

L101I100%
seen:302

 •

T112V100%
seen:421

 •

I113V100%
seen:421

 •

T124A100%
seen:302

 •

I135V100%
seen:426

 •

F181L100%
seen:480

 •

V201I100%
seen:480

 •

T206S100%
seen:702

 •

I208L100%
seen:480

 •

Y227F100%
seen:101

 •

L234I100%
seen:704

 •

D253Y100%
seen:171

 •

D256E100%
seen:432

 •

I268L100%
seen:427

 •

D270H100%
seen:128

 •

R284RG100%
seen:423

Integrase Strand Transfer Inhibitors	
bictegravir (BIC)	Susceptible
cabotegravir (CAB)	Susceptible
dolutegravir (DTG)	Susceptible
elvitegravir (EVG)	Susceptible
raltegravir (RAL)	Susceptible

No drug resistance mutations were found for INSTI.