Drug resistance interpretation: PR

HIVDB 9.5.1 (2023-11-05)

PI Major Mutations: None
PI Accessory Mutations: None
PR Other Mutations: V11X • T12R • I13L • K14S • I15K • G16* • Q18E • L19A • E35D • M36L • R41K • R57K • L63T • H69K • L89M

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

Mutation scoring: PR

HIVDB 9.5.1 (2023-11-05)

No drug resistance mutations were found for PI.

Drug resistance interpretation: RT

HIVDB 9.5.1 (2023-11-05)

NRTI Mutations: V75I • K219Q
NNRTI Mutations: None
RT Other Mutations: G18S • E28G • V35T • T39N • E40D • K49R • I50V • V60I • T69S • D121H • K122E • I132L • S162C • D177E • I178V • T200A • Q207K • R211K • P217T • D218R • P226S • Y232M • E233N • Δ234 • H235S • D237* • K238Q • P243L • I244* • V245T • Δ246 • P247X • E248R • D250E • N255M • D256I • I257Y • Q258R • K259V • L260V • V261E • G262S • K263Q • L264W

Nucleoside Reverse Transcriptase Inhibitors	
abacavir (ABC)	Potential Low-Level Resistance
zidovudine (AZT)	Low-Level Resistance
stavudine (D4T)	Low-Level Resistance
didanosine (DDI)	Potential Low-Level Resistance
emtricitabine (FTC)	Susceptible
lamivudine (3TC)	Susceptible
tenofovir (TDF)	Potential Low-Level Resistance

Non-nucleoside Reverse Transcriptase Inhibitors	
doravirine (DOR)	Susceptible
efavirenz (EFV)	Susceptible
etravirine (ETR)	Susceptible
nevirapine (NVP)	Susceptible
rilpivirine (RPV)	Susceptible

RT comments

NRTI

- **V75I** is a relatively non-polymorphic accessory mutation that often occurs in combination with the multi-NRTI resistance mutation Q151M. When it occurs alone, its clinical significance is uncertain.
- **K219E/Q/N/R** are accessory TAMS that usually occur in combination with multiple other TAMs.

Other

- **T69N/S/A/I/E** are relatively non-polymorphic mutations weakly selected in persons receiving NRTIs. They may minimally contribute reduced AZT susceptibility.
- I132M is an extremely rare non-polymorphic mutation associated with uncertain amount of reduced NVP and EFV susceptibility. **I132L** is a more common, non-polymorphic NNRTI-selected mutation that has not been well studied.
- L234I is a nonpolymorphic mutation selected in persons receiving NVP and EFV. It is also selected in vitro by ETR and DOR. In combination with V106A, it is associated with high-level DOR resistance. Its effect on susceptibility when it occurs alone has not been well characterized. **L234del** 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.

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

Drug resistance mutation scores of NRTI: Download CSV

Rule	ABC	AZT	D4T	DDI	FTC	3TC	TDF
V75I	5	5	5	5	5	5	5
K219Q	5	10	10	5	0	0	5
Total	10	15	15	10	5	5	10

No drug resistance mutations were found for NNRTI.