Drug resistance interpretation: RT

HIVDB 9.5.1 (2023-11-05)

NRTI Mutations: None
NNRTI Mutations: None
RT Other Mutations: A554S • V559I

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

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: T66TA
INSTI Accessory Mutations: L74LM
IN Other Mutations: K14R • S17SN • L28I • P30A • V31VI • M50MI • I60M • E96D • T112V • I113V • S119SR • T124S • T125A • V126F • K136Q • K156KN • H171HQ • V201I • T218S • D286DN

Integrase Strand Transfer Inhibitors	
bictegravir (BIC)	Susceptible
cabotegravir (CAB)	Susceptible
dolutegravir (DTG)	Susceptible
elvitegravir (EVG)	High-Level Resistance
raltegravir (RAL)	Low-Level Resistance

IN comments

Major

- **T66A/I** are non-polymorphic mutations selected in persons receiving EVG, RAL, and DTG usually in combination with other INSTI-resistance mutations. They cause moderate reductions in EVG susceptibility but do not appear to reduce susceptibility to other INSTIs.

Accessory

- **L74M** is a common polymorphic INSTI-resistance mutation. It has a prevalence between 1% and 5% among INSTI-naïve persons depending on subtype. It appears to be selected by each of the INSTIs. Alone it does not reduce INSTI susceptibility. However, in combination with other INSTI-resistance mutations, it contributes reduced susceptibility to each of the INSTIs.

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.
- **S119R** is a polymorphic mutation that is weakly selected by INSTIs usually in combination with several major INSTI-associated DRMs. Alone, it has little, if any effect, on INSTI susceptibility.

Mutation scoring: IN

HIVDB 9.5.1 (2023-11-05)

Drug resistance mutation scores of INSTI: Download CSV

Rule	BIC	CAB	DTG	EVG	RAL
T66TA	0	0	0	60	15