Stanford University
HIV DRUG RESISTANCE DATABASE
A curated public database to represent, store and analyze HIV drug resistance data.

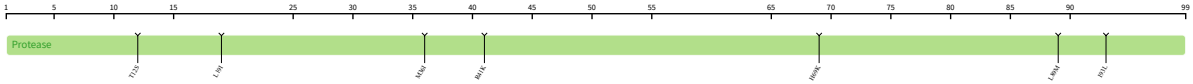
1. userinput unamed sample: 1

Sequence summary

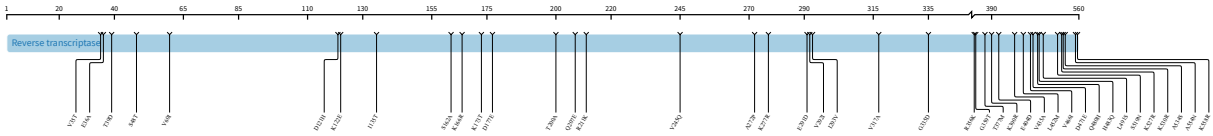
Sequence includes PR:	codons 1 - 99
Sequence includes RT:	codons 1 - 560
Sequence includes IN:	codons 1 - 288
Subtype:	⊞ C (3.38%)

Sequence quality assessment

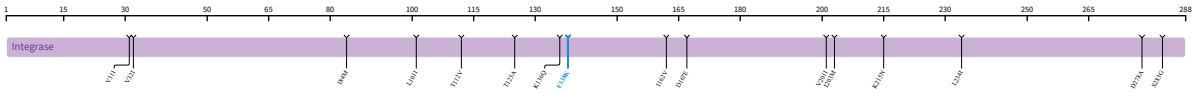
Protease (PR)



Reverse transcriptase (RT)



Integrase (IN)



There are no known sequence quality issues.

Drug resistance interpretation: PR
HIVDB 9.8 (2025-01-05)

PI Major Mutations:	None
PI Accessory Mutations:	None
PR Other Mutations:	T12S • L19I • M36I • R41K • H69K • L89M • I93L

Protease Inhibitors	
atazanavir/r (ATV/r)	Susceptible
darunavir/r (DRV/r)	Susceptible
lopinavir/r (LPV/r)	Susceptible

Mutation scoring: PR
HIVDB 9.8 (2025-01-05)

No drug resistance mutations were found for PI.

Drug resistance interpretation: RT

HIVDB 9.8 (2025-01-05)

NRTI Mutations: None
NNRTI Mutations: None
RT Other Mutations: V35T • E36A • T39D • S48T • V60I • D121H • K122E • I135T • S162A • K166R • K173T • D177E • T200A • Q207E • R211K • V245Q • A272P • K277R • E291D • V292I • I293V • V317A • G335D • R356K • G359T • T377M • K390R • E404D • V435A • L452M • V466I • D471E • Q480H • H483Q • L491S • S519N • K527R • K530R • A534S • A554N • K558R

Nucleoside Reverse Transcriptase Inhibitors		Non-nucleoside Reverse Transcriptase Inhibitors	
abacavir (ABC)	Susceptible	**doravirine (DOR)**	Susceptible
zidovudine (AZT)	Susceptible	**efavirenz (EFV)**	Susceptible
emtricitabine (FTC)	Susceptible	**etravirine (ETR)**	Susceptible
lamivudine (3TC)	Susceptible	**nevirapine (NVP)**	Susceptible
tenofovir (TDF)	Susceptible	**rilpivirine (RPV)**	Susceptible

Mutation scoring: RT

HIVDB 9.8 (2025-01-05)

No drug resistance mutations were found for NRTI.

No drug resistance mutations were found for NNRTI.

Drug resistance interpretation: IN

HIVDB 9.8 (2025-01-05)

INSTI Major Mutations: **E138K**
INSTI Accessory Mutations: None
IN Other Mutations: V31I • V32I • I84M • L101I • T112V • T125A • K136Q • I162V • D167E • V201I • I203M • K215N • L234I • D278A • S283G

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

IN comments

Major

- **E138K/A/T** are common nonpolymorphic accessory resistance mutations selected in patients receiving RAL, EVG, CAB, and DTG. Alone they do not reduce INSTI susceptibility. However, they contribute to reduced susceptibility in combination with other mutations particularly those at position 148.

Dosage

- This virus is predicted to have low-level reduced susceptibility to **CAB**. The use of the combination of **CAB**/RPV should be considered to be relatively contraindicated.

Mutation scoring: IN

HIVDB 9.8 (2025-01-05)

Drug resistance mutation scores of INSTI:

Rule	BIC	CAB	DTG	EVG	RAL
E138K	10	15	10	15	15