Drug resistance interpretation: IN — HIVDB 9.5.1 (2023-11-05)

INSTI Major Mutations: E92Q • N155H
INSTI Accessory Mutations: None
IN Other Mutations: E11D • V31M • V32I • S39C • I72V • L101I • K111R • S119P • I135V • G193E • V201I • T218S • D288G

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

**IN comments**

**Major**

- **E92Q** is a common non-polymorphic mutation selected in persons receiving RAL and EVG. It reduces RAL susceptibility 5 to 10-fold and EVG susceptibility ~30-fold. It does not reduce susceptibility to BIC, CAB, and DTG.
- **N155H** is a common nonpolymorphic INSTI-resistance mutations. It has been reported in a high proportion of persons developing VF and HIVDR while receiving RAL, EVG, DTG, and CAB. Alone, it reduces RAL and EVG susceptibility about 10 and 30-fold, respectively. It has minimal effect on susceptibility to DTG, BIC, and CAB.
- There is evidence for intermediate **DTG** resistance. If **DTG** is used, it should be administered twice daily.

Mutation scoring: IN — HIVDB 9.5.1 (2023-11-05)

*Drug resistance mutation scores of INSTI:* Download CSV

| Rule | BIC | CAB | DTG | EVG | RAL |
|---|---|---|---|---|---|
| E92Q | 10 | 15 | 10 | 60 | 30 |
| E92Q + N155H | 10 | 20 | 10 | 10 | 10 |
| N155H | 10 | 25 | 10 | 60 | 60 |
| Total | 30 | 60 | 30 | 130 | 100 |