Genotypic ARV Resistance Report

Patient Information

Our Ref. ID: VCI-21208

Name:	♂ โอชา ไชยโสดา	**Your Ref. ID:**	**P22-06581**
Hospital/Site:	PRIBTA	**Study/Visit:**	
Risk Factor:	No Information	**Collection Date:**	21-Feb-2022
Clinical Staging:	No Information **CDC Staging:** No Information	**Genotyping Date:**	07-Mar-2022

Lab Information

Current CD4:	No Information	**Current Antiretroviral:**	Unknown
Current VL:	395000 copies/ml (21-Feb-2022)		

Summary Data

Subtype and % similarity to closest reference isolate: CRF01_AE (97%)

Sequence includes RT: condons: 20 - 244

Resistance Report (RT)

RT TAMs: -

RT NRTIs: -

RT NNRTIs: **E138EK**

RT Other: V35T, T39K, K43E, V90VI, K122E, D123NS, K166R, K173I, Q174K, D177E, I178M, V179I, T200TAIV, E204Q, Q207A, R211S, K238R

Antiretroviral	High-level resistance	Intermediate resistance	Low-level resistance	Potential low-level resistance	Susceptible
NRTI					
zidovudine (AZT)					
tenofovir (TDF)					
stavudine (D4T)					
lamivudine (3TC)					
emtricitabine (FTC)					
didanosine (DDI)					
abacavir (ABC)					
NNRTI					
rilpivirine (RPV)					
nevirapine (NVP)					
etravirine (ETR)					
efavirenz (EFV)					
doravirine (DOR)					

ConsensusR#21208RT.txt

Remark: 1. Although the mutation is not found, it does not mean that one is fully susceptible to the treatment since the resistant virus may be minor population which cannot be detected by the assay (detectable limit = viral load 1,000 copies/ml).
2. The accumulation of TAMs (M41L, D67N, K70R, L210W, T215Y/F, K219Q/E) increases resistance to tenofovir. Mutations M41L and L210W, contribute more than others
3. References: Stanford dBase system (http://hivdb.stanford.edu/)

Reported by: _____ Date: 7/3/2022

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Mutation Scoring

	NNRTI				
	DOR	**EFV**	**ETR**	**NVP**	**RPV**
E138EK	10	10	10	10	45

RT Comments

Other
- V179I is a polymorphic mutation that is frequently selected in patients receiving ETR and RPV. But It has little, if any, direct effect on NNRTI susceptibility.
- K238R is a common polymorphism that does not reduce NNRTI susceptibility.
- V90I is a polymorphic accessory mutation weakly selected by each of the NNRTIs. It has a weight of 1.0 in the Tibotec ETR genotypic susceptibility score but is associated with minimal, if any, detectable reduction in NNRTI susceptibility.

NNRTI
- E138K is a non-polymorphic mutation selected in a high proportion of patients receiving RPV. It reduces RPV susceptibility by 2 to 3-fold and in combination with K101E or the NRTI-resistance mutation M184I, it is sufficient to cause virological failure on a first-line RPV-containing regimen. E138K causes low-level cross-resistance to ETR and possibly to DOR.

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

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