MICROBIOLOGY & IMMUNOLOGY
Te Tari Moromoroiti me te Ārai Mate

A1: Summary Report

Patient Details

Patient Name:	DOUGLAS JONES	Barcode:	1000
DOB:	5/10/90	NHI:	FSX1234
Gender:	M	Ethnicity:	MAORI
Location:	AUCKLAND	Sample Type:	SPUTUM
Sample Date:	1/10/15	Culture Method:	MGIT CULTURED ISOLATES
Reporting Lab:	LABPLUS	Technician:	DR ROD JACKSON
Sequencing Date:	19/05/20	Sequencing:	WGS
Requested by:	DR. EXAMPLE	Contact:	EMAIL.ADDRESS@DHB.GOVT.NZ

Resistance Profile

Drug Class	Resistance	Drug	Mutation
First Line	Sensitive	Isoniazid	*No resistance predicted*
		Ethambutol	*No resistance predicted*
		Pyrazinamide	*No resistance predicted*
	Resistance	**Rifampicin**	**rpoB His445Asn**
Second Line	Sensitive	Amikacin	*No resistance predicted*
		Capreomycin	*No resistance predicted*
		Ethionamide	*No resistance predicted*
		Kanamycin	*No resistance predicted*
		Linezolid	*No resistance predicted*
		Para-aminosalicylic	*No resistance predicted*
		Streptomycin	*No resistance predicted*
	Resistance	**Fluoroquinolones**	**gyrB Asn499Asp**

A2: Whole Genome Sequencing Report

Genotypic Report

Drug	Genomics Position	Allele		Gene (Mutation)	High Confidence	PMID
		Reference	Alternative			
Rifampicin	761139	C	A	rpoB His445Asn	yes	14729930
Rifampicin	761139	C	G	rpoB His445Asp	yes	21300839
Rifampicin	761139	C	T	rpoB His445Tyr	yes	21300839
Fluoroquinolones	6734	A	G	gyrB Asn499Asp	yes	17412727
Fluoroquinolones	6735	A	C	gyrB Asn499Thr	yes	24055765
Fluoroquinolones	6738	C	A	gyrB Thr500Asn	yes	24055765
Fluoroquinolones	6741	A	T	gyrB Glu501Val	yes	19721073
Fluoroquinolones	6750	C	T	gyrB Ala504Val	yes	24055765
Fluoroquinolones	7563	G	T	gyrA Gly88Cys	yes	24055765
Fluoroquinolones	7564	G	C	gyrA Gly88Ala	yes	24055765
Fluoroquinolones	7572	T	C	gyrA Ser91Pro	yes	21562102
Fluoroquinolones	6575	C	T	gyrB Arg446Cys	no	19470506
Fluoroquinolones	6749	G	A	gyrB Ala504Thr	no	19470506

NOTE: This genotypic report is a prediction of drug resistance based on the detection of known resistance conferring mutations, and should only be used as a guide. The actual drug susceptability may differ from what is stated in this report.

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A3: Technical Report

Pipeline

Pipeline	Resistance V0.01a	Genome	H37Rv
Phred Score	30	Masking	NO

Forward Statistics: WRX.R1.fastq.gz

Pre-Trimming		Post-Trimming	
Total Reads	VALUE	Total Reads	VALUE (%)
Average Quality	VALUE	Average Quality	VALUE
GC%	VALUE	GC%	VALUE
Mean read length	VALUE	Mean read length	VALUE
Read range	VALUE	Read range	VALUE

Reverse Statistics

File name	NAME		
Pre-Trimming		Post-Trimming	
Total Reads	VALUE	Total Reads	VALUE (%)
Average Quality	VALUE	Average Quality	VALUE
GC%	VALUE	GC%	VALUE
Mean read length	VALUE	Mean read length	VALUE
Read range	VALUE	Read range	VALUE

Alignment Statistics

Notes

Clinician: _____   **Signature:** _____   June 9, 2020