

A1: Summary Report

Patient Details

Patient Name:	JACOB REDFIELD	Barcode:	1001
DOB:	20/04/75	NHI:	FRX9012
Gender:	M	Ethnicity:	NZ EUROPEAN
Location:	AUCKLAND	Sample Type:	SPUTUM
Sample Date:	7/09/16	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.GOV.NZ

Resistance Profile

Drug Class	Resistance	Drug	Mutation
First Line	Resistance	Isoniazid	katG Ser315Thr
		Rifampicin	rpoB Val170Phe
Second Line	Sensitive	Ethambutol	embB Gly406Ala
		Pyrazinamide	pncA Leu19Pro
		Amikacin	No resistance predicted
		Capreomycin	No resistance predicted
		Ethionamide	No resistance predicted
		Kanamycin	No resistance predicted
	Resistance	Linezolid	No resistance predicted
		Para-aminosalicylic	No resistance predicted
		Fluoroquinolones	gyrB Asn499Asp
		Streptomycin	rpsL Lys43Arg

A2: Whole Genome Sequencing Report

Genotypic Report

Drug	Genomics Position	Allele		Gene (Mutation)	High Confidence	PMID
		Reference	Alternative			
Isoniazid	2155168	G	C	katG Ser315Thr	yes	8878604
Isoniazid	2155168	G	A	katG Ser315Asn	yes	9210694
Isoniazid	2155168	G	T	katG Ser315Ile	yes	9210694
Rifampicin	760314	G	T	rpoB Val170Phe	yes	11136757
Ethambutol	4247730	G	C	embB Gly406Ala	yes	20427375
Ethambutol	4247730	G	A	embB Gly406Asp	yes	20427375
Pyrazinamide	2289186	T	C	pncA Leu19Pro	yes	25336456
Streptomycin	781687	A	G	rpsL Lys43Arg	yes	22646308
Fluoroquinolones	6734	A	G	gyrB Asn499Asp	yes	17412727
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	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 susceptibility may differ from what is stated in this report.

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