MycoChase Sequence Analysis Report

Sample Details

Patient ID:	[PATIENTID]	Patient name:	[PATIENTNAME]
Sample ID:	[SAMPLEID]	Sample Received Date:	[SAMPLEDATE]
Sample Source:	[SAMPLESOURCE]	Library Prep Date:	[LABPREPDATE]
Culture Type:	[CULTURETYPE]	Sequencing Date:	[SEQDATE]
Laboratory Technician:	[LABTECH]	Report Date:	[REPORTDATE]
Contact:	[CONTACT]		

Assay Details

Sequencer:	Illumina MiSeqDx	Method:	Targeted Panel NGS
Pipeline:	MycoAnalyzer version 1.0.0	Reference:	H37Rv (NC_000962.3)
Quality Control:	[QC]		

MycoChase Species Identification

Species (%)	[SPECIES]
Lineage*	[LINEAGE]
Spoligotype*	[SPOLIGOTYPE]

*Lineage and spoligotype are only reported for Mycobacterium tuberculosis complex. The lineage was estimated based on the 90 single nucleotide polymorphisms (SNPs) reported by Napier et al. [Genome Med. 2020;12(1):114]

MycoChase Drug Susceptibility Test

Resistance (R) is reported when a reported resistance mutation is detected in loci of interest.* Except for RIF and INH, drugs-related mutations cannot be used for diagnosis because they have not been evaluated through clinical trials. Regarding the RIF and INH, mutations with tier 3 (uncertain significance) need to be further verified. Susceptible (S) = no mutation is detected in the genes associated with resistance to the drugs or all detected mutations are considered to be consistent with susceptibility. Susceptible(S) does not exclude the possibility of resistance.				No mutation detected MDR** XDR**
Class	Drug	Gene Target# (AA change, VAF, Tier)	Result	Comments
1st-line drugs	ISONIAZID (INH)	[0x0]	[1x0]	[2x0]
	RIFAMPICIN (RIF)	[0x1]	[1x1]	[2x1]
	ETHAMBUTOL (EMB)	[0x2]	[1x2]	[2x2]
	PYRAZINAMIDE (PZA)	[0x3]	[1x3]	[2x3]
2st-line drugs (group A)	LEVOFLOXACIN (LFX)	[0x4]	[1x4]	[2x4]
	OFLOXACIN (OFX)	[0x5]	[1x5]	[2x5]
	MOXIFLOXACIN (MFX)	[0x6]	[1x6]	[2x6]
	LINEZOLID (LZD)	[0x7]	[1x7]	[2x7]
	BEDAQUILINE (BDQ)	[0x8]	[1x8]	[2x8]
2st-line drugs (group B)	CLOFAZIMINE (CFZ)	[0x9]	[1x9]	[2x9]
2st-line drugs (group C)	DELAMANID (DEL)	[0x10]	[1x10]	[2x10]
	AMIKACIN (AMK)	[0x11]	[1x11]	[2x11]
	CAPREOMYCIN (CAP)	[0x12]	[1x12]	[2x12]
	KANAMYCIN (KAN)	[0x13]	[1x13]	[2x13]
	STREPTOMYCIN (STM)	[0x14]	[1x14]	[2x14]
	ETHIONAMIDE (ETO)	[0x15]	[1x15]	[2x15]
	PROTHIONAMIDE (PTO)	[0x16]	[1x16]	[2x16]

*The target genes for resistance mutations were derived from the Catalogue of mutations in Mycobacterium tuberculosis complex and their association with drug resistance (2021, World Health Organization; Lancet Microbe. 2022;3(4):e265)

**MDR, multi-drug resistance; XDR: extensively drug resistance

#AA change, amino acids change; VAF, variant allele frequency; Tier is derived from the Catalogue of mutations in Mycobacterium tuberculosis complex and their association with drug resistance (2021, World Health Organization).

Final Result

[FINALRESULT]

*The result for drug resistance is based on tier 1 or 2 mutations reported by the Catalogue of mutations in Mycobacterium tuberculosis complex and their association with drug resistance (2021, World Health Organization).

Additional Comment

[ADDCOMMENT]

*The result for drug resistance is based on tier 1 or 2 mutations reported by the Catalogue of mutations in Mycobacterium tuberculosis complex and their association with drug resistance (2021, World Health Organization).

Authorized By

Reporting Laboratory:	¡¡[REPORTLAB]	Doctor¡¯s Name:	[DOCTORNAME]
		Signature:	
Address:	¡¡[ADDRESS]		