Table S 1 Summary of the drug targets, products and mechanism of action.

Drug targets	Product	Functional activity	Mechanism of action
Ddn **fgd1**	Encodes deazaflavin-dependent nitro-reductase encodes F420-dependent glucose-6-phosphate dehydrogenase	Mycolic acid biosynthesis.	(Pa) Inhibits the cell wall synthesis [1,2]
rplC (Rv0701) **rrl (MTB000020)**	Encodes 50S ribosomal L3 protein Ribosomal RNA 23 S	Ribosome peptidyl transferase center formation Stable RNAs	(LZD) Inhibits protein synthesis [3-5]
MmpL5 (RV0678) **(Rv1979c)**	Conserved protein conserved permease	Transcription repressor for efflux pump Transportation of amino acid across membrane	(CFZ) Inhibits mycobacterial growth and binds to mycobacterial DNA [6,7]
Rv0678 **atpE Rv1305**	Conserved protein the subunit C of the ATP synthase	Regulation of multi-substrate efflux pump disturbs inhibition against bacterial ATP synthase C	(BDQ) Inhibition of mycobacterial ATP synthetase [8-10]
katG,(1908c) **inhA (Rv 1484)** **kasA (Rv2245)**	Catalase peroxidase NADH dependant enoyl ACP reductase β-Ketoacyl acyl carrier protein synthase	Intracellular survival of mycobacteria Mycolic acid biosynthesis Fatty acid biosynthesis	(INH) Inhibition of cell wall mycolic acid synthesis [11-13]
rpoB (Rv 0667) **rpoA (Rv3457c)**	β-subunit of RNA polymerase α-Subunit of RNA polymerase	Catalysis DNA transcription into RNA	(RIF) Inhibition of RNA synthesis [14,15]
embA Rv3794 **embB (Rv3795)** **emb C (Rv3793)** **EtbR (Rv0273c)**	Probable arabinosyl transferase A Probable arabinosyl transferase B Probable arabinosyltransferase C Transcriptional regulator in M. tuberculosis	Biosynthesis of mycobacterial cell wall	(EMB) Inhibition of cell wall arabinogalactan biosynthesis [16,17]
pncA (Rv2043c) **RpsA (Rv 1630)**	Pyrazinamidase/nicotinamidase) 30 S ribosomal protein S1	Converts the pro-drug Z into pyrazinoic acid (POA) mRNA translation with a shine dalgarno purine rich sequence	(PZA) Reduction of membrane energy; inhibition of trans-translation; inhibition of pantothenate and coenzyme A synthesis [18,19]

rpsL (Rv0682)	30 S ribosomal protein 12Rpsl	Initiation of translation	(STR) Inhibition of protein synthesis [20,21]
rrs ((MTB000019)	16 S ribosomal RNA	Stable RNAs	
gyrA (Rv006)	DNA gyrase subunit A		Fluoroquinalone Inhibition of DNA synthesis [22,23]
gyrB (0005)	DNA gyrase subunit B	Negatively supercoils closed circular double-standard DNA	
rrs, (MTB00019)	16 ribosomal RNA	Stable RNAs	(CAP, AMK, KAM) Inhibition of protein synthesis [24-26]
eis, (Rv2416)	Aminoglycoside N-acetyl transferase	Acetylation intracellular survival	
tlyA (Rv1694)	2′-O- methyltransferase	Methylates 16S and 23 S rRNAs	
hyA (Rv 2764c)	Thymidylate synthase	Deoxiribonucleotide biosynthesis	(PAS) Inhibition of folic acid and thymine nucleotide metabolism [27-29]
folC (Rv2447c),	Folylpolyglutamate synthase protein	Conversion of folates to polyglutamate derivates	
ribD (Rv2671)	Bifunctional enzyme riboflavin biosynthesis protein	Riboflavin biosynthesis	
ethA (Rv3854c)	Monooxygenase EthA	Activation of pro-drug Eth	(ETO) Inhibition of cell wall mycolic acid synthesis [30-32]
inhA (Rv1484)	NADH dependant enoyl ACP reductase	Mycolic acid biosynthesis	
KasA (Rv 2245)	β-ketoacyl acyl carrier protein synthase	Involved in fatty acid biosynthesis	

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