

550 **Supplemental Table 1. Patterns of drug resistance by GenoType MTBDR_{plus} and MTBDR_{sl} and sequencing analysis**

Drug	Band on the strip	Target mutation	Strain No.	Conventional DST (Strain No.)	Sequencing (Strain No.)	Mutation by sequencing (amino acid) (Strain No.)
RFP						
<i>rpoB</i> ΔWT8, MUT3		S531L	40	R (40)		
<i>rpoB</i> ΔWT8		530-533	8	R (7)	√ (7)	<i>rpoB</i> TCG(S) 531 ATG(M) (1) <i>rpoB</i> TCG(S) 531 TGG(W) + <i>rpoB</i> GAG(E) 504 GCG(A) (1) <i>rpoB</i> TCG(S) 531 TGG(W) (2) <i>rpoB</i> TCG(S) 531 CAG(Q) (1) <i>rpoB</i> CTG(L) 533 CCG(P) + <i>rpoB</i> GAC(D) 516 GCC(A) (1) <i>rpoB</i> CTG(L) 533 CCC(P) + <i>rpoB</i> AAC(N) 518 AGC(S) (1)
<i>rpoB</i> ΔWT7,ΔWT8		526-533	2	S (1) R (2)	√ (1) √ (2)	<i>rpoB</i> CTG(L) 533 CCG(P) (1) <i>rpoB</i> TCG(S) 531 GCG(A) + <i>rpoB</i> CAC(H) 526 CTC(L) (1) <i>rpoB</i> CAC(H) 526 AAC(N) (1)
<i>rpoB</i> ΔWT7,MUT2B		H526D	6	R (6)		
<i>rpoB</i> ΔWT7,MUT2A		H526Y	8	R (8)		
<i>rpoB</i> ΔWT7,MUT1		D516V	1	R (1)		
<i>rpoB</i> ΔWT8,MUT3		S531L	40	R (40)		
<i>rpoB</i> ΔWT8		530-533	8	R (7)	√ (7)	<i>rpoB</i> TCG(S) 531 ATG(M) (1) <i>rpoB</i> TCG(S) 531 TGG(W) + <i>rpoB</i> GAG(E)

					<i>rpoB</i> T <u>C</u> G(S) 531 T <u>G</u> G(W) (2)
					<i>rpoB</i> T <u>C</u> G(S) 531 <u>C</u> AG(Q) (1)
					<i>rpoB</i> C <u>T</u> G(L) 533 C <u>C</u> G(P) + <i>rpoB</i> G <u>A</u> C(D)
					<i>rpoB</i> C <u>T</u> G(L) 533 C <u>C</u> C(P) + <i>rpoB</i> A <u>A</u> C(N)
			S (1)	√ (1)	<i>rpoB</i> C <u>T</u> G(L) 533 C <u>C</u> G(P) (1)
<i>rpoB</i> ΔWT7,ΔWT8	526-533	2	R (2)	√ (2)	<i>rpoB</i> T <u>C</u> G(S) 531 <u>G</u> CG(A) + <i>rpoB</i> C <u>A</u> C(H)
					<i>rpoB</i> <u>C</u> AC(H) 526 <u>A</u> AC(N) (1)
<i>rpoB</i> ΔWT7,MUT2B	H526D	6	R (6)		
<i>rpoB</i> ΔWT7,MUT2A	H526Y	8	R (8)		
<i>rpoB</i> ΔWT7,MUT1	D516V	1	R (1)		
<i>rpoB</i> ΔWT7,(MUT2B)	526-529	3	R (3)	√ (3)	<i>rpoB</i> <u>C</u> AC(H) 526 <u>G</u> AC(D) + <i>rpoB</i> G <u>A</u> A(E)
					<i>rpoB</i> <u>C</u> AC(H) 526 <u>G</u> AC(D) (2)
<i>rpoB</i> ΔWT7,(MUT2A)	526-529	2	R (2)	√ (2)	<i>rpoB</i> <u>C</u> AC(H) 526 T <u>A</u> C(Y) (2)
<i>rpoB</i> ΔWT7	526-529	6	R (5)	√ (5)	<i>rpoB</i> C <u>A</u> C(H) 526 C <u>G</u> C(R) (2)
					<i>rpoB</i> <u>C</u> AC(H) 526 <u>G</u> AC(D) (2)
					<i>rpoB</i> C <u>A</u> C(H) 526 C <u>T</u> C(L) (1)
			S (1)	√ (1)	<i>rpoB</i> C <u>A</u> C(H) 526 C <u>T</u> C(L) (1)
<i>rpoB</i> ΔWT6	518-525	3	R (2)	√ (2)	<i>rpoB</i> T <u>C</u> G(S) 522 T <u>T</u> G(L) (2)
			S (1)	√ (1)	<i>rpoB</i> T <u>C</u> G(S) 522 T <u>T</u> G(L) (1)
<i>rpoB</i> ΔWT3,ΔWT8	513-517,	1	R (1)	√ (1)	<i>rpoB</i> <u>A</u> TG(M) 515 <u>C</u> TG(L) + <i>rpoB</i> C <u>T</u> G(L)
<i>rpoB</i> ΔWT3,ΔWT4,ΔWT8	513-519,	3	R (3)	√ (3)	<i>rpoB</i> G <u>A</u> C(D) 516 G <u>G</u> C(G) + <i>rpoB</i> C <u>T</u> G(L)
					<i>rpoB</i> G <u>A</u> C(D) 516 G <u>C</u> C(A) + <i>rpoB</i> C <u>T</u> G(L)
<i>rpoB</i> ΔWT3,ΔWT4,MUT1	D516V	2	R (2)		
<i>rpoB</i> ΔWT3,ΔWT4	513-519	2	R (1)	√ (1)	<i>rpoB</i> <u>G</u> AC(D) 516 T <u>A</u> C(Y) + <i>rpoB</i> C <u>C</u> C(P)
			S (1)	√ (1)	<i>rpoB</i> G <u>A</u> C(D) 516 G <u>G</u> C(G) (1)

INH	<i>rpoB</i> ΔWT2,ΔWT7	510-513,	1	R (1)	√ (1)	<i>rpoB</i> C <u>A</u> C(H) 526 C <u>G</u> C(R) + <i>rpoB</i> <u>A</u> GC(S)
	<i>rpoB</i> ΔWT2,ΔWT3	510-517	1	R (1)	√ (1)	<i>rpoB</i> C <u>A</u> A(Q) 513 C <u>T</u> A(L) (1)
	<i>rpoB</i> ΔWT1	505-509	2	R (2)	√ (2)	<i>rpoB</i> A <u>T</u> C(I) 572 A <u>C</u> C(T) (2)
	<i>rpoB</i> ΔWT,MUT2B	H526D	1	R (1)		
	<i>rpoB</i> MUT2A,MUT3	H526Y,	1	R (1)		
	<i>rpoB</i> MUT1	D516V	2	R (2)		
	<i>rpoB</i> WT		4	S (4)		
	<i>katG</i> ΔWT,MUT2,(MUT1)	S315T	1	R (1)	√ (1)	<i>katG</i> A <u>G</u> C(S) 315 A <u>C</u> A(T)(1)
	<i>katG</i> ΔWT,MUT1	S315T	54	R (53)		
				S (1)	√ (1)	<i>inhA</i> C -15 T (1)
	<i>katG</i> ΔWT,MUT2	S315T	1	R (1)		
	<i>katG</i> ΔWT	315	3	R (3)	√ (3)	<i>katG</i> A <u>G</u> C(S) 315 A <u>A</u> C(N) (1)
						<i>katG</i> A <u>G</u> C(S) 315 A <u>A</u> C(N) + <i>katG</i> <u>A</u> TC(I)
						<i>katG</i> A <u>G</u> C(S) 315 A <u>A</u> C(N) + <i>inhA</i> C -15 T (1)
	Δ <i>katG</i> ΔWT	315	3	R (3)	√ (3)	<i>katG</i> , <i>inhA</i> NM (1)
						NA (2)
	<i>katG</i> WT		37	R (21)		
				S (16)		
	<i>inhA</i> ΔWT1,(MUT1)	-15	1	R (1)	√ (1)	<i>inhA</i> C -15 T (1)
	<i>inhA</i> ΔWT2	-8	4	R (4)	√ (4)	<i>katG</i> A <u>G</u> C(S) 315 A <u>A</u> C(N) (1)
						<i>katG</i> A <u>G</u> C(S) 315 A <u>C</u> C(T) (2)
						<i>inhA</i> C-34 T (1)
	<i>inhA</i> MUT1	C-15T	1	R (1)		
	<i>inhA</i> WT		74	R (66)		

			S (8)		
	<i>inhA</i> ΔWT1,MUT1	C-15T	12	R (3)	
			S (9)	√ (9)	<i>inhA</i> C -15 T (9)
	(<i>inhA</i>) <i>inhA</i> WT		4	R (4)	√ (4) <i>katG</i> , <i>inhA</i> NM (4)
	(<i>inhA</i>)(<i>inhA</i> WT2) <i>inhA</i> WT1	-16	3	R (3)	√ (3) <i>inhA</i> C -26 T (2)
					<i>katG</i> , <i>inhA</i> NM (1)
	<i>katG</i> WT+ <i>inhA</i> WT*		18	R (10)	√ (10) <i>katG</i> GGC(G) 299 GTC(V) (1)
					<i>katG</i> , <i>inhA</i> NM (9)
OFX	<i>gyrA</i> ΔWT3,MUT1,MUT3B	A90V,	3	R (3)	
	<i>gyrA</i> ΔWT3,MUT3D,(MUT1)	A90V,	1	R (1)	√ (1) <i>gyrA</i> GAC(D) 94 CAC(H) (1)
	<i>gyrA</i> ΔWT3,MUT3A	D94A	2	R (1)	√ (1)
				S (1)	<i>gyrA</i> GAC(D) 94 GCC(A) (1)
	<i>gyrA</i> ΔWT3,MUT3B	D94N	2	R (2)	
	<i>gyrA</i> ΔWT3,MUT3C	D94G	7	R (5)	
	<i>gyrA</i> ΔWT3,MUT1	A90V	2	R (2)	
	<i>gyrA</i> ΔWT2,MUT1	A90V	3	R (2)	
				S (1)	√ (1) <i>gyrA</i> GCG(A) 90 GTG(V) (1)
OFX	<i>gyrA</i> ΔWT2,MUT2	S91P	1	R (1)	
	<i>gyrA</i> ΔWT2	89-93	1	R (1)	√ (1) <i>gyrA</i> GCG(A) 90 GTG(V) + <i>gyrA</i> TCG(S) 91
	<i>gyrA</i> MUT3A,(MUT1,WT3)	(A90V),	1	R (1)	√ (1) <i>gyrA</i> GAC(D) 94 GCC(A) (1)
	<i>gyrA</i> MUT3A	D94A	3	R (3)	
	<i>gyrA</i> MUT3C,(MUT1,WT3)	(A90V),	3	R (2)	√ (2) <i>gyrA</i> GAC(D) 94 GGC(G) (2)
		D94G		---† (1)	√ (1) <i>gyrA</i> GAC(D) 94 GGC(G) (1)
	<i>gyrA</i> MUT3C	D94G	2	R (2)	

	<i>gyrA</i> MUT1,MUT3C,(WT3)	A90V,	2	R (2)	√ (2)	<i>gyrA</i> G <u>A</u> C(D) 94 G <u>G</u> C(G) (2)
	<i>gyrA</i> MUT1,MUT3C	A90V,	2	R (2)		
	<i>gyrA</i> MUT1,(MUT3C)	A90V,	1	S (1)	√ (1)	<i>gyrA</i> , <i>gyrB</i> NM (1)
	<i>gyrA</i> MUT1,(WT2)	A90V	1	R (1)	√ (1)	<i>gyrA</i> G <u>C</u> G(A) 90 G <u>T</u> G(V) (1)
	<i>gyrA</i> MUT1	A90V	6	R (5)		
				S (1)	√ (1)	<i>gyrA</i> G <u>C</u> G(A) 90 G <u>T</u> G(V) (1)
	<i>gyrA</i> WT		56	R (2)	√ (2)	<i>gyrB</i> A <u>C</u> C(T) 511 A <u>A</u> C(N) (1)
				S (50)		<i>gyrB</i> G <u>T</u> G(V) 422 G <u>G</u> G(G) + <i>gyrB</i> C G <u>A</u> (R)
				---† (4)	√ (4)	<i>gyrA</i> , <i>gyrB</i> NM (4)
Km	<i>rrs</i> ΔWT1,MUT1	A1401G	4	R (3)		
				---† (1)	√ (1)	<i>rrs</i> , <i>eis</i> NM (1)
	<i>rrs</i> MUT1,(WT1)	A1401G	1	R (1)	√ (1)	<i>rrs</i> A 1401 G (1)
	<i>rrs</i> MUT1	A1401G	3	R (1)		
				S (1)	√ (1)	<i>rrs</i> A 1401 G (1)
				---† (1)	√ (1)	<i>rrs</i> T 1491 A (1)
	<i>rrs</i> WT		89	R (3)	√ (3)	<i>rrs</i> , <i>eis</i> NM (2)
				S (81)		<i>eis</i> G -10 A (1)
				---† (5)	√ (5)	<i>rrs</i> , <i>eis</i> NM (5)
	<i>rrs</i> (WT)		2	S (2)	√ (2)	<i>rrs</i> A 1401 G (1)
EMB						<i>rrs</i> , <i>eis</i> NM (1)
	<i>embB</i> ΔWT,MUT1A	M306I	11	R (10)		

<i>embB</i> ΔWT,MUT1B	M306V	15	S (1) R (13)	√ (1)	<i>embB</i> AT <u>G</u> (M) 306 AT <u>A</u> (I) (1)
<i>embB</i> ΔWT	306	6	S (2) R (5)	√ (2) √ (5)	<i>embB</i> <u>A</u> TG(M) 306 <u>G</u> TG(V) (2) <i>embB</i> AT <u>G</u> (M) 306 AT <u>T</u> (I) (2) <i>embB</i> AT <u>G</u> (M) 306 AT <u>C</u> (I) (2) <i>embB</i> <u>A</u> T <u>G</u> (M) 306 <u>C</u> TG(L) (1) <i>embB</i> AT <u>G</u> (M) 306 AT <u>T</u> (I) (1)
<i>embB</i> MUT1A	M306I	1	S (1) R (1)	√ (1)	
<i>embB</i> MUT1B	M306V	1	R (1)		
<i>embB</i> WT		65	R (21)	√ (21)	<i>embB</i> AT <u>G</u> (M) 306 AT <u>C</u> (I) (1) <i>embB</i> T <u>A</u> T(Y) 319 T <u>G</u> T(I) (1) <i>embB</i> G <u>G</u> C(G) 407 G <u>C</u> C(A) (1) <i>embB</i> <u>G</u> CG(A) 410 <u>C</u> CG(P) (1) <i>embB</i> NM (15) NA (2)

S (44)

551 WT, presence of all wild-type bands for specific genes; ΔWT, omission of wild-type band; MUT, presence of specific mutation band; (WT) or
552 (MUT), weak band; Δ*katG*, omission of *katG* locus control band; (*inhA*), *inhA* locus control band was very weak
553 R=resistant, S=sensitive, NA=not available, NM= no mutation
554 * To indicate INH resistance by reading both *katG* and *inhA* bands
555 † Conventional DST result was not available.