Supplementary tables

Table S1 *Distribution of drug resistance conferring mutations in different genes included in the cluster analysis for INH, RIF, EMB, PZA, SLIDs and FQs among 461 XDR-TB patients diagnosed with XDR-TB in the Western Cape Province of South Africa, 2006 – 2017*

Drugs	Gene	Different mutations	Isolates n (%)
INH	*inhA* promotor	*fabG*1_c.-15C>T	31 (6.7)
	inhA promotor + *ahpC*	*fabG*1_c.-15C>T, *ahpC*_c.-48G>A	1 (0.2)
	katG + *ahpC*	*katG*_p.Ser315Thr, *ahpC*_c.-48G>A	13 (2.8)
	inhA promotor + *inhA*	*fabG*1_c.-15C>T, *inhA*_p.Ile194Thr	72 (15.6)
	inhA + *katG*	*inhA*_p.Ser94Ala, *katG*_p.Ser315Thr	3 (0.7)
	inhA promotor + *katG*	*fabG*1_c.-15C>T, *katG*_p.Ser315Thr	143 (31.0)
		*fabG*1_c.-15C>T, *katG*_p.Thr394Ala	1 (0.2)
		*fabG*1_c.-17G>T, *katG*_p.Ser315Thr	153 (33.2)
		*fabG*1_c.-8T>A, *katG*_p.Ser315Thr	7 (0.4)
	katG	*katG*_p.Ser315Thr	37 (8.0)
RIF	*rpoB*	*rpoB*_p.Asp435Gly, *rpoB*_p.Leu452Pro	5 (1.1)
		*rpoB*_p.Asp435Tyr	4 (0.9)
		*rpoB*_p.Asp435Val	154 (33.4)
		*rpoB*_p.Gln432Lys	1 (0.2)
		*rpoB*_p.His445Asn	1 (0.2)
		*rpoB*_p.His445Asp	1 (0.2)
		*rpoB*_p.Ser450Leu	286 (62.0)
		*rpoB*_p.Ser450Leu, *rpoB*_p.His445Arg	1 (0.2)
		*rpoB*_p.Ser450Leu, *rpoB*_p.Thr400Ala	2 (0.4)
	rpoB + *rpoC*	*rpoC*_p.Leu527Val, *rpoB*_p.Ser450Leu	4 (0.9)
		*rpoC*_p.Phe452Ser, *rpoB*_p.Ser450Leu	2 (0.4)
EMB*	*embA*	*embA*_c.-16C>G	4 (0.9)
	embB	*embB*_p.Asp354Ala	2 (0.4)
		*embB*_p.Gln497Arg	5 (1.1)
		*embB*_p.Gln497Lys, *embB*_p.Met306Ile	3 (0.7)
		*embB*_p.Gly406Asp	2 (0.4)
		*embB*_p.Gly406Ser	2 (0.4)
		*embB*_p.Met306Ile	304 (65.9)
		*embB*_p.Met306Ile, *embB*_p.Asp1024Asn	1 (0.2)
		*embB*_p.Met306Val	127 (27.5)
	embB + *embA*	*embB*_p.Met306Val, *embA*_c.-16C>T	2 (0.4)
PZA**	*pncA*	*pncA*_c.135_136insTG	1 (0.2)
		*pncA*_c.389_389del	1 (0.2)
		*pncA*_c.391_392insGG	1 (0.2)
		*pncA*_c.456_457insC	5 (1.1)
		*pncA*_c.459_466del	3 (0.7)
		*pncA*_c.517_518insG	153 (33.2)
		*pncA*_p.Asp8Asn	33 (7.2)
		*pncA*_p.Cys14Arg	144 (31.2)
		*pncA*_p.Cys14Trp	1 (0.2)
		*pncA*_p.Gln10Pro	3 (0.7)
		*pncA*_p.Gly132Ala	1 (0.2)

		*pncA*_p.Met175Val	1 (0.2)
		*pncA*_p.Phe13Leu	1 (0.2)
		*pncA*_p.Ser164Pro	6 (1.3)
		*pncA*_p.Thr135Pro	6 (1.3)
		*pncA*_p.Thr142Met	1 (0.2)
		*pncA*_p.Tyr103*	10 (2.2)
		*pncA*_p.Val130Ala	7 (1.5)
		*pncA*_p.Val139Gly	1 (0.2)
		*pncA*_p.Val139Met	13 (2.8)
SLIDs	*rrs*	*rrs*_r.1401a>g	448 (97.2)
		*rrs*_r.1402c>t	1 (0.2)
	eis	*eis*_c.-10G>A	2 (0.4)
		*eis*_c.-10G>C	4 (0.9)
		*eis*_c.-12C>T	2 (0.4)
		*eis*_c.-14C>T	1 (0.2)
		*eis*_c.-37G>T	2 (0.4)
		*eis*_c.-8C>A	1 (0.2)
FQs	*gyrA*	*gyrA*_p.Ala90Val	67 (14.5)
		*gyrA*_p.Asp89Asn	1 (0.2)
		*gyrA*_p.Asp94Ala	51 (11.1)
		*gyrA*_p.Asp94Ala, *gyrA*_p.Ala90Val	2 (0.4)
		*gyrA*_p.Asp94Asn	55 (11.9)
		*gyrA*_p.Asp94Gly	206 (44.7)
		*gyrA*_p.Asp94His	4 (0.9)
		*gyrA*_p.Asp94Tyr	16 (3.5)
		*gyrA*_p.Gly88Cys	15 (3.3)
		*gyrA*_p.Ser91Pro	18 (3.9)
		*gyrA*_p.Ser91Pro, *gyrA*_p.Ala90Val	1 (0.2)
		*gyrA*_p.Ser91Pro, *gyrA*_p.Asp94Gly	1 (0.2)
	gyrB	*gyrB*_p.Arg446Cys	6 (1.3)
		*gyrB*_p.Asn499Asp	1 (0.2)
		*gyrB*_p.Asn499Lys	1 (0.2)
		*gyrB*_p.Asp461Asn	4 (0.9)
		*gyrB*_p.Asp461His	3 (0.7)
		*gyrB*_p.Glu501Asp	5 (1.1)
		*gyrB*_p.Glu501Val	1 (0.2)
	gyrA + *gyrB*	*gyrB*_p.Arg446Cys, *gyrA*_p.Ala90Val	1 (0.2)
		*gyrB*_p.Asp461Asn, *gyrA*_p.Ala90Val	2 (0.4)

[a] NA = not applicable, INH = isoniazid, RIF = rifampicin, EMB = ethambutol, PZA = pyrazinamide, SLIDs = second line injectable drugs, FQs = fluoroquinolones, *isolates susceptible to EMB (n=9), **isolates with no pncA mutations and susceptible to PZA (n=69)

Table S2 *All mutations observed in the samples included in the analyses*

SAMPLE	RIF	INH	PZA	EMB	FQS	SLIDS
R20784	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R24480	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Thr135Pro	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R34488	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R6709	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R36768	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R38716	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala, gyrA_p.Ala90Val	rrs_r.1401a>g
R35914	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R35861	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R19366	rpoB_p.Asp435Val	katG_p.Ser315Thr	pncA_p.Phe13Leu	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R15097	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R4274	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R39526	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrA_p.Gly88Cys	rrs_r.1401a>g
R11121	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R13403	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R13123	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_p.Cys14Trp	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R23865	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R27545	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R29439	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g

R11654	rpoB_p.Ser450Leu	katG_p.Ser315Thr, inhA_p.Ser94Ala	pncA_p.Gln10Pro	embB_p.Gln497Arg	gyrA_p.Asp94Tyr	-
R32587	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R21471	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R20376	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R33930	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	-	gyrA_p.Ala90Val	rrs_r.1401a>g
R37017	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R31116	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ser91Pro	rrs_r.1401a>g
R10867	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R24220	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R27133	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ser91Pro	rrs_r.1401a>g
X116	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R19367	rpoB_p.Ser450Leu, rpoB_p.Thr400Ala	fabG1_c.-15C>T	-	embB_p.Gly406Ser	gyrA_p.Asp94Ala	rrs_r.1401a>g
R27188	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R4218	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R22010	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R19517	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Val130Ala	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R27001	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R39203	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R13723	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R17660	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g

R21670	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R14894	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R18094	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R29343	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_c.391_392insGG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R10435	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R33907	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R8695	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrA_p.Asp94Gly	-
R16642	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Thr135Pro	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
X167	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Ser164Pro	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R20666	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrB_p.Asn499Lys	rrs_r.1401a>g
R4250	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R18476	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R20954	rpoB_p.Asp435Tyr	katG_p.Ser315Thr	-	embA_c.-16C>G	gyrA_p.Asp94Gly	rrs_r.1401a>g
R10912	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R9908	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R15629	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R27153	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R24194	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R19148	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R6265	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R34500	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g

R9762	rpoB_p.Ser450Leu, rpoB_p.Thr400Ala	fabG1_c.-15C>T	-	embB_p.Gly406Ser	gyrA_p.Asp94Ala	rrs_r.1401a>g
R10552	rpoB_p.Ser450Leu	katG_p.Ser315Thr, inhA_p.Ser94Ala	pncA_p.Gln10Pro	embB_p.Gln497Arg	gyrA_p.Asp94Tyr	-
R21313	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Thr394Ala	pncA_p.Tyr103*	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R27420	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R4853	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R13060	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R6297	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrB_p.Asp461Asn	-
R31647	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R39270	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Ser91Pro	rrs_r.1401a>g
R5235	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R28124	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R26837	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R35320	rpoB_p.Asp435Tyr	katG_p.Ser315Thr	-	embA_c.-16C>G	gyrA_p.Asp94Gly	rrs_r.1401a>g
R32251	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R30006	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R5908	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R26993	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R23187	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94His	rrs_r.1401a>g
R27711	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R19712	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R11405	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g

R9964	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R29546	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ser91Pro	rrs_r.1401a>g
R11581	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R16785	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94His	rrs_r.1401a>g
R4558	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R14770	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R17181	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R5581	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	-	embB_p.Gln497Arg	gyrA_p.Ala90Val	rrs_r.1401a>g
R36647	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_p.Tyr103*	embB_p.Met306Val	gyrA_p.Asp94Gly	-
R10318	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R11448	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R20710	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R34486	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g
R33481	rpoB_p.Ser450Leu, rpoC_p.Leu527Val	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R27383	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R36909	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R13188	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R30371	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R19868	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R23831	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R22020	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g

R15633	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R11139	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_c.459_466del	embB_p.Met306Val	gyrA_p.Ser91Pro	rrs_r.1401a>g
X4	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ser91Pro	rrs_r.1401a>g
R9946	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrB_p.Asp461Asn	rrs_r.1401a>g
R10873	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R24620	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_c.459_466del	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R10921	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R4888	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R35632	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R30452	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R21302	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R39835	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R29662	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	embB_p.Met306Val	gyrB_p.Arg446Cys	rrs_r.1401a>g
R37464	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R27664	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R31345	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R24675	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R33323	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	-	gyrA_p.Ala90Val	rrs_r.1401a>g
R3715	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R39416	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R18531	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R3696	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g

R12966	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	embB_p.Met306Val	gyrB_p.Arg446Cys	rrs_r.1401a>g
R17871	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R27129	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R17207	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R24417	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R26807	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R39422	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrB_p.Asp461Asn, gyrA_p.Ala90Val	rrs_r.1401a>g
R9127	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R18066	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R3896	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
X130	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R36850	rpoB_p.Asp435Gly, rpoB_p.Leu452Pro	fabG1_c.-8T>A, katG_p.Ser315Thr	pncA_c.456_457insC	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R19234	rpoB_p.Ser450Leu	katG_p.Ser315Thr	-	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R13602	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Ser91Pro	rrs_r.1401a>g
R9882	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R8073	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R17400	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R18522	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R34305	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrB_p.Asp461His	rrs_r.1401a>g
R31322	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R28413	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g

R33922	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_c.459_466del	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R22572	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R9671	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val, embA_c.-16C>T	gyrA_p.Asp94Gly, gyrA_p.Ser91Pro	rrs_r.1401a>g
R37378	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R6932	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R6702	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R21689	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R34001	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R18174	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R12052	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrB_p.Arg446Cys	rrs_r.1401a>g
R11687	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
X7	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R19048	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R4489	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R31891	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Ser91Pro	rrs_r.1401a>g
R27080	rpoB_p.Ser450Leu, rpoC_p.Leu527Val	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R22688	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R14756	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Val130Ala	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R13166	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R15305	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	-	gyrA_p.Asp94Gly	rrs_r.1401a>g
R30446	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Ser91Pro	rrs_r.1401a>g

R14489	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Val130Ala	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R21213	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R29897	rpoB_p.Asp435Gly, rpoB_p.Leu452Pro	fabG1_c.-8T>A, katG_p.Ser315Thr	pncA_c.456_457insC	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R37359	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R34514	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R10398	rpoB_p.Asp435Gly, rpoB_p.Leu452Pro	fabG1_c.-8T>A, katG_p.Ser315Thr	pncA_c.456_457insC	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R17281	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R2969	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_p.Tyr103*	embB_p.Asp354Ala	gyrA_p.Asp94Gly	rrs_r.1401a>g
X91	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94His	rrs_r.1401a>g
R28468	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R24211	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Ser91Pro	rrs_r.1401a>g
R12425	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R23866	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrA_p.Asp94Asn	rrs_r.1401a>g
R13560	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R18028	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R36404	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R22911	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R31329	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
X2	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrB_p.Glu501Asp	rrs_r.1401a>g
R19406	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R15282	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Ser164Pro	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g

R4221	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R27276	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R34184	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R18700	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R20367	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Thr135Pro	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R29551	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R17581	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R14876	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R35808	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R9951	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R6705	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R21826	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R26892	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R26725	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R33910	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	-	gyrA_p.Ala90Val	rrs_r.1401a>g
R9941	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R8666	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	-	embB_p.Gln497Arg	gyrA_p.Ala90Val	rrs_r.1401a>g
R31630	rpoB_p.Ser450Leu	fabG1_c.-8T>A, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile, embB_p.Gln497Lys	gyrA_p.Ser91Pro	rrs_r.1401a>g
R19882	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R20189	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_p.Tyr103*	-	gyrA_p.Ser91Pro	rrs_r.1401a>g
R29125	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g

R20073	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R18369	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R22740	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ser91Pro	rrs_r.1401a>g
R29799	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R39462	rpoB_p.Asp435Tyr	katG_p.Ser315Thr	-	embA_c.-16C>G	gyrA_p.Asp94Gly	rrs_r.1401a>g
R38964	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R4933	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R28700	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R17064	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R4203	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R33225	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R23197	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R20964	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R27500	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Val130Ala	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R17084	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R18920	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g
R27303	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Ser91Pro	rrs_r.1401a>g
R17203	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R31399	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R5620	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
X39	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g

R19628	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R9673	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R19005	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile, embB_p.Gln497Lys	gyrA_p.Ala90Val	rrs_r.1401a>g
R15310	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g
R12550	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R16923	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R28945	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R5317	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R32291	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R19725	rpoB_p.Asp435Gly, rpoB_p.Leu452Pro	fabG1_c.-8T>A, katG_p.Ser315Thr	pncA_c.456_457insC	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R9126	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R15957	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R4524	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R9779	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Thr135Pro	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R33494	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R17926	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R33916	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R13673	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R27501	rpoB_p.Ser450Leu, rpoC_p.Phe452Ser	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrB_p.Asp461His	rrs_r.1401a>g
R16826	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g

R32208	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
X49	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R9047	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R10854	rpoB_p.Ser450Leu, rpoC_p.Leu527Val	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R23384	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R17830	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R26851	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R23853	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R19816	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R3889	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrB_p.Asp461Asn	rrs_r.1401a>g
R16323	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R38942	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R15100	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R33918	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R23604	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Val130Ala	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R33917	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R5166	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	embB_p.Met306Val	gyrB_p.Arg446Cys	rrs_r.1401a>g
R15539	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
X173	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrB_p.Asp461Asn	rrs_r.1401a>g
R27650	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrB_p.Asp461Asn, gyrA_p.Ala90Val	rrs_r.1401a>g

R9345	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R13923	rpoB_p.His445Asp	fabG1_c.-15C>T	pncA_p.Thr142Met	-	gyrA_p.Asp94Asn	-
R19726	rpoB_p.Asp435Gly, rpoB_p.Leu452Pro	fabG1_c.-8T>A, katG_p.Ser315Thr	pncA_c.456_457insC	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R23839	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R19512	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R3983	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R30937	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Ala	-
X50	rpoB_p.Ser450Leu	fabG1_c.-8T>A, katG_p.Ser315Thr	pncA_c.389_389del	embB_p.Asp1024Asn, embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R35856	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R22123	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R11044	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R22654	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Val130Ala	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R15167	rpoB_p.Asp435Tyr	katG_p.Ser315Thr	-	embA_c.-16C>G	gyrB_p.Glu501Asp	rrs_r.1401a>g
R18977	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_p.Tyr103*	embB_p.Met306Val	gyrA_p.Asp94Gly	-
R13121	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g
R15531	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R8194	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R17085	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	-	gyrB_p.Glu501Val	rrs_r.1401a>g
R32272	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	embB_p.Met306Val	gyrB_p.Arg446Cys	rrs_r.1401a>g
R39352	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R38892	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R28854	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g

R22918	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Ser164Pro	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R9191	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R4731	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94His	rrs_r.1401a>g
R13071	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R8247	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R21103	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R3174	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R39195	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R4164	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R28518	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1402c>t
R20767	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R22116	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R7831	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R26863	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R6596	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R30463	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
X154	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R28887	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val, embA_c.-16C>T	gyrA_p.Ala90Val	rrs_r.1401a>g
R30207	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R20321	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g

R33926	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R11138	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Thr135Pro	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R19351	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R10319	rpoB_p.Ser450Leu	katG_p.Ser315Thr	-	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R11493	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R33804	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R14766	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	embB_p.Met306Val	gyrA_p.Ala90Val, gyrB_p.Arg446Cys	rrs_r.1401a>g
R26787	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Val130Ala	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R7110	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R38747	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrA_p.Ala90Val	-
R18774	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R33904	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Thr135Pro	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R30454	rpoB_p.Gln432Lys	katG_p.Ser315Thr	-	embB_p.Met306Val	gyrA_p.Asp94Asn	rrs_r.1401a>g
R5065	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Gly132Ala	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R31853	rpoB_p.Ser450Leu	katG_p.Ser315Thr, inhA_p.Ser94Ala	pncA_p.Gln10Pro	embB_p.Gln497Arg	gyrA_p.Asp94Gly	-
R8407	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R6809	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R6196	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	-	gyrA_p.Asp94Asn	rrs_r.1401a>g
R22034	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R5318	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R14852	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Val139Gly	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g

R21754	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R39730	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ser91Pro, gyrA_p.Ala90Val	rrs_r.1401a>g
R33486	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R19404	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R18343	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R9157	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R38779	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_p.Tyr103*	embB_p.Met306Ile	gyrA_p.Asp94Gly	-
R29391	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrB_p.Asn499Asp	rrs_r.1401a>g
R23538	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R5258	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R27406	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R19077	rpoB_p.Ser450Leu	katG_p.Ser315Thr	-	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R10637	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Ser164Pro	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R24418	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R11709	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R36112	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R32278	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R3731	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R4704	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R5252	rpoB_p.Ser450Leu	fabG1_c.-15C>T, ahpC_c.-48G>A	pncA_p.Tyr103*	embB_p.Asp354Ala	gyrA_p.Asp94Gly	rrs_r.1401a>g
R12533	rpoB_p.Ser450Leu, rpoC_p.Phe452Ser	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrB_p.Asp461His	rrs_r.1401a>g

R18143	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Met175Val	embB_p.Met306Val	gyrA_p.Ser91Pro	-
R26831	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R24412	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R22901	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R16000	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R3974	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R29794	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
X85	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile, embB_p.Gln497Lys	gyrA_p.Ala90Val	rrs_r.1401a>g
R21236	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R28751	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R21413	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R36725	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R32070	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R19290	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R20863	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R17970	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R36765	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrB_p.Glu501Asp	rrs_r.1401a>g
R38960	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrA_p.Ser91Pro	rrs_r.1401a>g
R2850	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R19790	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ser91Pro	rrs_r.1401a>g
R29690	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g

R13449	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R4775	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R4817	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R36351	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrB_p.Glu501Asp	rrs_r.1401a>g
R30040	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_p.Tyr103*	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R19631	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R11158	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R17597	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R17009	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R9362	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Ser164Pro	embB_p.Met306Val	gyrA_p.Asp94Asn	rrs_r.1401a>g
R20890	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R11689	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R15797	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R5954	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R27917	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R23874	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala, gyrA_p.Ala90Val	rrs_r.1401a>g
R3833	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
X66	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	embB_p.Met306Val	gyrB_p.Arg446Cys	rrs_r.1401a>g
R9950	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R2967	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R38180	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g

R21092	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R5066	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_p.Tyr103*	embB_p.Gly406Asp	gyrA_p.Asp94Gly	rrs_r.1401a>g
X198	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R18045	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R33791	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R38864	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R13332	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R11502	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R33316	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Ser164Pro	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g
R33506	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_c.135_136insTG	embB_p.Gly406Asp	gyrA_p.Asp94Gly	rrs_r.1401a>g
R5490	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R32275	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R33997	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g
R18285	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R16462	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R10212	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R29538	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R8081	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R4577	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R15871	rpoB_p.Ser450Leu	fabG1_c.-15C>T	-	-	gyrA_p.Asp94Gly	rrs_r.1401a>g
R27659	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g

R36851	rpoB_p.Ser450Leu	fabG1_c.-15C>T	pncA_p.Tyr103*	embB_p.Met306Val	gyrA_p.Asp94Asn	rrs_r.1401a>g
R10877	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g
R4312	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R17303	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R3960	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R24216	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R4825	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R27605	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R33925	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R20825	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R27920	rpoB_p.His445Arg, rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R4488	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R11380	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g
R3093	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Gly88Cys	rrs_r.1401a>g
R18647	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R34532	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R35862	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R15416	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp89Asn	rrs_r.1401a>g
X38	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R35206	rpoB_p.His445Asn	katG_p.Ser315Thr	-	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R3269	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g

R6254	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R38593	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g
R3415	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R27725	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R32158	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Asp94Ala	rrs_r.1401a>g
R19442	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R17246	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ser91Pro	rrs_r.1401a>g
R37936	rpoB_p.Ser450Leu	ahpC_c.-48G>A, katG_p.Ser315Thr	pncA_p.Val139Met	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R5354	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R33511	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R27658	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Ala90Val	rrs_r.1401a>g
R29503	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrB_p.Glu501Asp	rrs_r.1401a>g
R18095	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R37955	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R22895	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g
R31314	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
R30466	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
X3	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Gly	rrs_r.1401a>g
X186	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g
R2841	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Ala	rrs_r.1401a>g

R15141	rpoB_p.Ser450Leu	katG_p.Ser315Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Gly	rrs_r.1401a>g
R13587	rpoB_p.Ser450Leu, rpoC_p.Leu527Val	fabG1_c.-15C>T, inhA_p.Ile194Thr	-	embB_p.Met306Val	gyrA_p.Ala90Val	rrs_r.1401a>g
R32055	rpoB_p.Ser450Leu	fabG1_c.-15C>T, katG_p.Ser315Thr	pncA_p.Cys14Arg	embB_p.Met306Ile	gyrA_p.Asp94Tyr	rrs_r.1401a>g
R24188	rpoB_p.Ser450Leu	fabG1_c.-15C>T, inhA_p.Ile194Thr	pncA_p.Asp8Asn	embB_p.Met306Val	gyrA_p.Asp94Asn	rrs_r.1401a>g
R19246	rpoB_p.Asp435Val	fabG1_c.-17G>T, katG_p.Ser315Thr	pncA_c.517_518insG	embB_p.Met306Ile	gyrA_p.Asp94Asn	rrs_r.1401a>g

[a] INH = isoniazid, RIF = rifampicin, EMB = ethambutol, PZA = pyrazinamide, SLIDs = second line injectable drugs, FQs = fluoroquinolones, - = no mutati

Table S3 *The number of clusters after merging on common ancestor using different SNP cutoffs*

SNP cutoff	5	8	10	12	15
Clusters after merging on common ancestor (n)	12	11	12	10	10

Supplementary figures

Figure S1 *Distribution of cluster sizes with 7 small clusters (2-4 isolates), 1 medium cluster (19 isolates), 3 large clusters (66, 70, 72 isolates) and 1 very large cluster (150 isolates).*

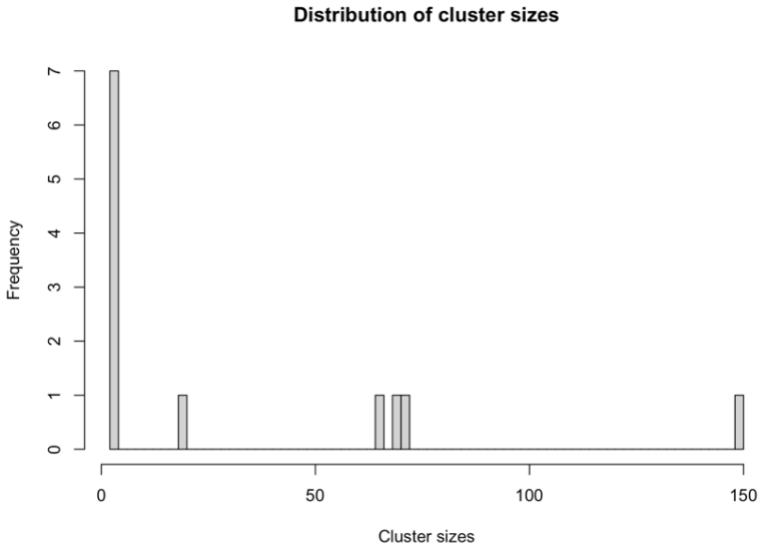

Figure S2 *Phylogenetic tree annotated with lineage information (inner circle) and transmission cluster sizes (outer circle). All large clusters are part of lineage 2.2.1 and 2.2.2.*

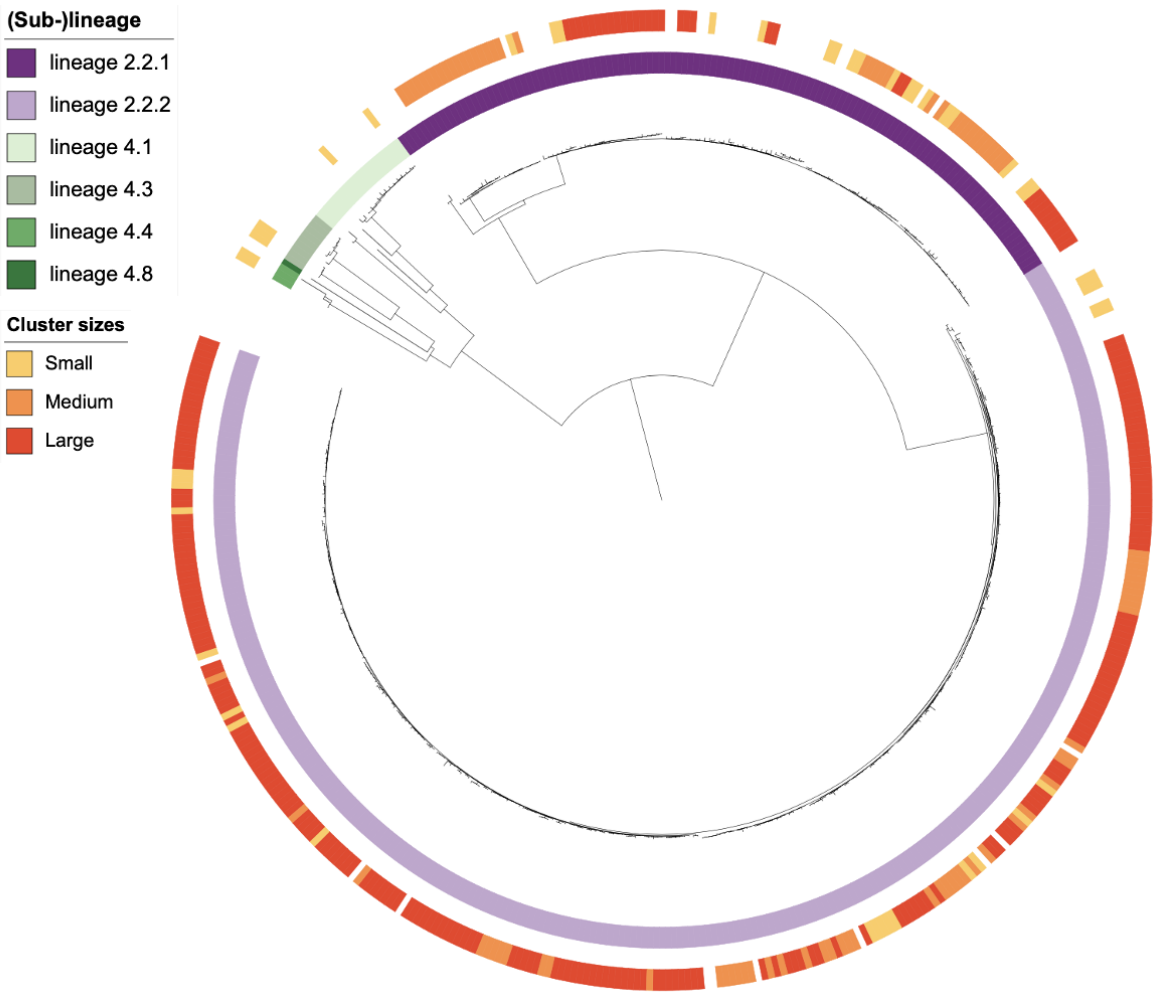

Figure S3a *Distribution of gender (inner circle) and cluster sizes after inclusion of INH + RIF + EMB + PZA + FQs + SLIDs resistance conferring mutations (outer circle) across the phylogenetic tree of individual XDR-Mtb isolates collected from 461 patients in the Western Cape Province of South Africa, 2006-2017*

Fig S3b*Distribution of age (inner circle) and cluster sizes after inclusion of INH + RIF + EMB + PZA + FQs + SLIDs resistance conferring mutations (outer circle) across the phylogenetic tree of individual XDR-Mtb isolates collected from 461 patients in the Western Cape Province of South Africa, 2006-2017*

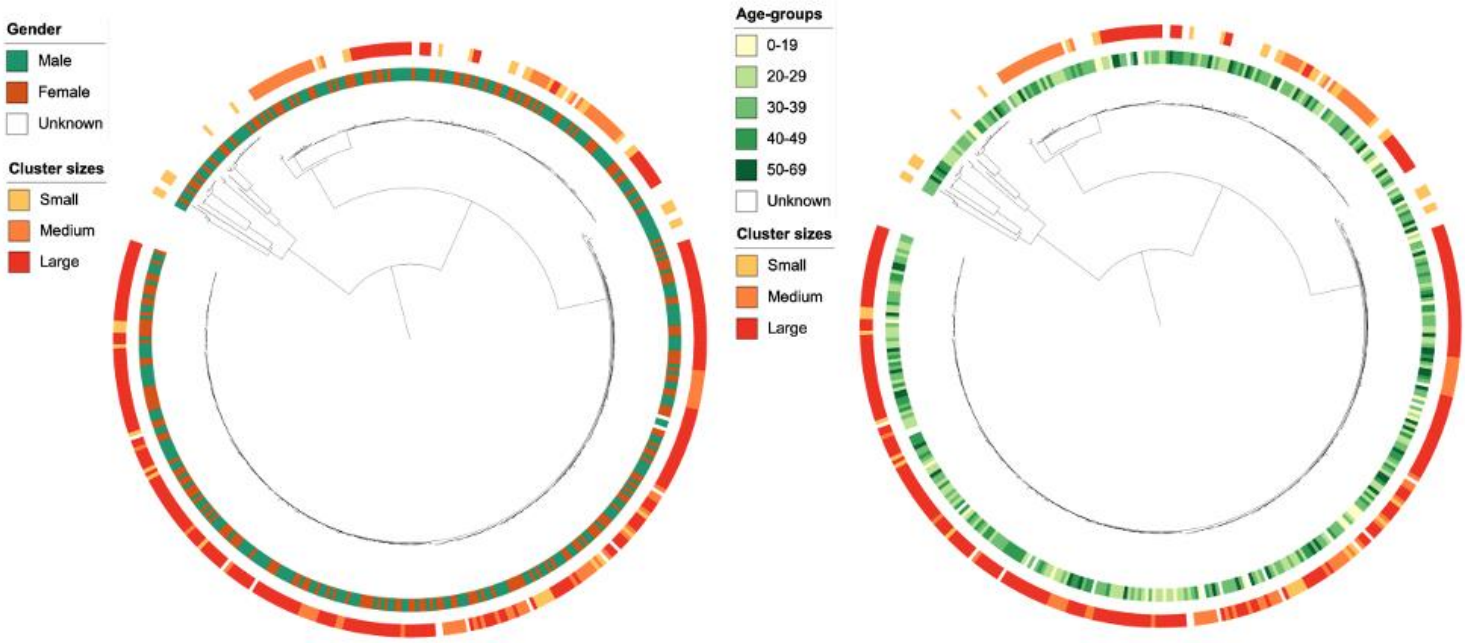

Fig S3c *Distribution of district (urban vs. rural) (inner circle) and cluster sizes after inclusion of INH + RIF + EMB + PZA + SLIDs +FQs resistance conferring mutations (outer circle) across the phylogenetic tree of individual XDR-Mtb isolates collected from 461 patients in the Western Cape Province of South Africa, 2006-2017*