

Supplement Table 1. Comparison of clinical primary sputum specimens processed from Akonni's Automated TruTip Workstation and analyzed on the Lab-on-a-Film disposable with Sanger Sequencing, DST, and Smear status. WT: wild type, S: Susceptible to INH and RIF. \* First run was discordant. Repeat (shown) was concordant. † First run was indeterminate. Repeat (shown) was concordant. \*\*Contaminated with bacteria other than MTB.

Sample ID	Lab-on-a-Film			Sequencing			DST	Smear	MGIT	LJ	
	MTB	rpoB	katG	inhA	rpoB	katG					inhA
PSR 5	+	WT*	WT	WT	WT	WT	WT	S	1+	+	+
PSR 6	+	WT†	WT	WT	WT	WT	WT	S	2+	+	+
PSR 7	+	WT	WT	WT	WT	WT	WT	S	1+	+	+
PSR 8	+	D516V GAC -> GTC	S315T AGC -> ACC	WT	D516V GAC -> GTC	S315T AGC -> ACC	WT	RIF & INH	3+	+	+
PSR 9	+	WT	WT	WT	WT	WT	WT	S	2+	+	+
PSR 10	+	D516V GAC -> GTC	S315T AGC -> ACC	WT	D516V GAC -> GTC	S315T AGC -> ACC	WT	RIF & INH	2+	+	+
PSR 11	+	WT	WT	WT	WT	WT	WT	S	2+	+	**
PSR 12		Poor/No amplification for both runs			No amplification observed			S		+	-
PSR 13	+	WT	WT	WT	WT	WT	WT	S	3+	+	+
PSR 14	+	S531L TCG -> TTG	WT	WT	S531L TCG -> TTG	WT	WT	RIF	3+	+	+
PSR 15	+	WT*	S315T AGC -> ACC	WT	WT	S315T AGC -> ACC	WT	INH	3+	+	+
PSR 16	+	S531L TCG -> TTG	WT	WT	S531L TCG -> TTG	WT	WT	RIF	3+	+	+
PSR 17	+	WT	S315T AGC -> ACC	WT	WT	S315T AGC -> ACC	WT	INH	3+	+	+
PSR 18	+	WT	WT	WT	WT	WT	WT	S	2+	+	+
PSR 19	+	WT	WT	WT	WT	WT	WT	S	1+	+	+
PSR 20	+	WT	WT	WT	WT	WT	WT	S	1+	+	+
PSR 21	+	D516V GAC -> GTC	S315T AGC -> ACC	WT	D516V GAC -> GTC	S315T AGC -> ACC	WT	RIF & INH	3+	+	+
PSR 22	+	WT	S315T AGC -> ACC	WT	WT	S315T AGC -> ACC	WT	INH	3+	+	+
PSR 23	+	WT	WT†	WT†	WT	WT	WT	S	1+	+	+
NSR 1	+	WT*	WT	WT	WT	WT	WT	S	-	+	-
NSR 2	+	WT	WT†	WT	WT	WT	WT	S	-	+	+
NSR 3	+	WT	S315T AGC -> ACC	WT	WT	S315T AGC -> ACC	WT	INH	-	+	+
NSR 4	+	WT	S315T AGC -> ACC	WT	WT	WT/S315T mix AGC -> ACC	WT	INH	-	+	+
NSR 5	+	WT*	S315T AGC -> ACC	WT	WT	WT/S315T mix AGC -> ACC	WT	INH	-	+	-
NSR 6	+	WT	WT	WT	WT	WT	WT	S	-	+	-
NSR 7	+	WT	WT	WT	WT	WT	WT	S	-	+	-
NSR 8	+	WT	WT	WT	WT	WT	WT	S	-	+	+