

DNA Sequencing Predicts 1st-Line Tuberculosis Drug Susceptibility Profiles

Supplementary materials

Contents:

Further details on sampling frame (including Table S0), missing data, <i>in silico</i> predictions for commercial molecular assays, and mislabeling rates.	p.2
S1 summary.	p.4
S1 details. (All isolates, SRA accession numbers, phenotypic methods and results, and genotypic predictions)	p.5
S2: (Knowledgebase of mutations used to make genomic predictions)	p.94
S3: (Performance of predictions by drug, and against different associated drug phenotypes)	p.108
S4: (Performance of predictions for de-duplicated data set, i.e. using only one representative per genomic cluster)	p.117
S5: (Drug profile predictions)	p.118
S6: (Performance for individual drugs for isolates with complete phenotypic data available)	p.119
S7: (Performance of drug profile predictions for isolates from countries' collections that were not enriched for resistance)	p.120
S8: (Re-phenotyping results, and results of clerical cross-checking analysis)	p.121
S9: (Performance of individual mutations that led to discrepancies, across the whole data set)	p.122
S10: (Estimated proportion of isolates discrepant due to mislabelling error)	p.124

Further details on sampling frames, missing data, *in silico* predictions for commercial molecular assays, and mislabelling rates

1. Sampling frame:

Isolates were derived from different collections, as detailed in table S1. All were enriched for resistance, with the exception of the collections from Germany (Hamburg), UK (Birmingham, Oxford, Leeds), Netherlands, and Italy (MGIT study).

The unenriched UK isolates were drawn from a prospective population study from Birmingham (2009-13) and from a collection of routinely sequenced clinical isolates from all of Birmingham since 2013. The surrounding region (the 'Midlands') has been prospectively sequenced since 2014, and was retrospectively sequenced from 2012-14. All isolates from the Midlands region are referred to the one centralised reference laboratory and stored there. Additional UK isolates were prospectively sequenced in Leeds as part of a study to sequence all positive MGIT cultures coming through Leeds laboratory between Oct 2013 to January 2014. Samples from Oxford were all sequenced as part of a prospective local surveillance effort, as well as part of the same study as in Leeds.

The unenriched Italian isolates were sequenced as part of a different prospective study of all positive MGIT cultures in Florence and surrounding province between February and October 2016. In Florence, all TB samples are referred to this one, centralised laboratory.

Isolates from Germany were all sequenced as part of a population study in Hamburg.

Isolates from the Netherlands were sequenced as part of a prospective population-based study in 2016, with additional samples sequenced from previous years as part of outbreak surveillance work. These latter samples were not enriched for resistance.

Although samples from the Birmingham, Oxford and Hamburg population studies were included in a previous study from which part of the knowledgebase of resistance mutations was derived, as described in the methods section ([http://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(15\)00062-6/abstract](http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(15)00062-6/abstract)), no samples that were included in that 2015 paper were re-used in this study (i.e. there is zero overlap across the studies).

Had any of the components of this subset been inadvertently enriched for resistance, we would expect bias towards worse outcome in terms of the negative predictive value, rather than better outcomes. To be secure that no bias occurred, the subset analysis was re-run using only the truly prospectively sampled isolates (samples from Birmingham, only prospective samples from the Midlands outside of Birmingham, samples from Leeds, from Florence, from Hamburg over the final 3 years of that study, and from the Netherlands from 2016 only). The results are shown in table S0 below and are not materially different from those presented in Table 2c, based on all isolates from 'collections unenriched for resistance'.

Table S0:

	Resistant phenotype, n (%)				Susceptible phenotype, n (%)				Sensitivity	Specificity	PPV	NPV		
	R	S	U	F	R	S	U	F						
INH	269	8	5	4	286	14	2,746	80	59	2,899	97.1	99.5	95.1	99.7
RIF	113	0	0	9	122	27	2,877	85	104	3,093	100.0	99.1	80.7	100.0
EMB	64	1	0	0	65	44	2,716	342	33	3,135	98.5	98.4	59.3	100.0
PZA	92	6	3	6	107	23	2,938	10	51	3,022	93.9	99.2	80.0	99.8

2. Missing phenotypic data

Missing phenotypic data was largely systematic, with different countries and laboratories having different policies on what was routinely tested. Details are shown in table S1. Some within centre variation was seen, which reflects of occasional assay failure or individual clinical decision to only test a subset of drugs – for example in the context of >1 isolate from the same patient having been referred to the laboratory for testing, or one culture becoming contaminated and another clinical isolate being sought. Alternatively, where PZA susceptibility was not routinely tested, clinical grounds occasionally determined that phenotypic PZA assays were performed.

3. *In silico* predictions for the MTB/RIF Xpert and the HAIN MTBDR_{plus} and MTBDR_s v1.0

All genomic loci probed by these tests were explored in the genome sequence data. Where a nucleotide call other than 'wild type' was identified, a prediction was made that the molecular assay in question would report 'resistance'. This included both synonymous and non-synonymous mutations, and therefore covered both HAIN line-probe eventualities of 'MUT' or 'wild type loss'. No prediction for these assays was made where there was a mixed population in the genomic data as it is not clear how the molecular assays would perform in such circumstances.

4. Mislabelling rates

The estimated mislabelling rate for isoniazid was greater than for rifampicin. The reason for this is not certain, but a significantly higher error rate was seen in mono-resistant isolates than for MDR-TB. For example, for isoniazid susceptible isolates containing rpoB_S450L mutations, 8/347 (2.2%) were phenotypically rifampicin susceptible, whilst for isoniazid resistant isolates containing rpoB_S450L mutations only 11/1527 (0.7%) were phenotypically rifampicin susceptible ($p=0.01$). Similarly, for katG_S315T mutations, for rifampicin susceptible isolates containing katG_S315T mutations, 20/1093 (1.8%) were phenotypically isoniazid susceptible, whereas for rifampicin resistant isolates containing katG_S315T mutations, only 13/1501 (0.9%) were phenotypically isoniazid susceptible ($p=0.03$). It may therefore be that concern about MDR-TB resulted in more careful cross-checking in individual centres, and that this concern was more often present when rpoB mutations had been detected (e.g. by MTB/RIF Xpert pre-testing), leading to a lower error rate than for katG mutations.

Table S1 summary

Agents routinely tested in this centre (for exceptions, see phenotypic results in Table S1)

<u>Source of original samples</u>	<u>Source of data</u>	<u>Country</u>	<u>WGS location</u>	<u>Phenotypic method</u>	<u>Agents routinely tested in this centre (for exceptions, see phenotypic results in Table S1)</u>	<u>Critical concentrations</u>
Birmingham and surrounding Midlands, UK	Public Health England, Birmingham, UK	UK	UK	MGIT 960	HREZ	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
British Columbia , Canada	British Columbia Centre for Disease Control, Canada	Canada	Canada	MGIT 960	HRE	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z - direct detection of pyrazinamidase activity
Samara, Russian Federation	Casali et. al. Nat Genet. 2014 (PMID: 24464101)	Russia	Russia	Resistance ratio method on LJ slopes. Modified Marks biphasic method for pyrazinamide, with confirmation in MGIT 960	HREZ	n/a
Belgium	Genoscreen	Belgium	France	MGIT 960	HREZ	H 0.1µg/mL; R 1.0µg/mL; E 5.0µg/mL; Z 100µg/mL
Hamburg	Forschungszentrum Borstel, Germany	Germany	Germany	MGIT 960	HREZ	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
Netherlands	Harvard School of Public Health, USA	Netherlands	USA	MGIT 960	HREZ	H 0.1µg/mL; R 1.0µg/mL; E 5.0µg/mL; Z 100µg/mL
Peru	Harvard School of Public Health, USA	Peru	USA	MGIT 960	HREZ	H 0.2µg/mL; R 1.0µg/mL; E 5.0µg/mL; Z 100µg/mL
Italy	San Raffaele Hospital, Milan, Italy	Italy	Italy	MGIT 960	HREZ	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
Italy, MGIT study in Florence	San Raffaele Hospital, Milan, Italy	Italy	Italy	MGIT 960	HREZ	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
Leeds	Public Health England and Leeds NHS teaching hospital, UK	UK	UK	MGIT 960	HREZ	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
London	Public Health England, London and Birmingham, UK	UK	UK	Resistance ratio method on LJ slopes. Modified Marks biphasic method for pyrazinamide, with confirmation in MGIT 960	HREZ	n/a
Swaziland	MSF Swaziland and Forschungszentrum Borstel, Germany	Swaziland	Germany	MGIT 960	HRE	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
Netherlands	RIVM, Netherlands	Netherlands	Netherlands	MGIT 960	HREZ	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
Oxford	Oxford University Hospitals NHS Foundation Trust	UK	UK	Resistance ratio method on LJ slopes. Modified Marks biphasic method for pyrazinamide, with confirmation in MGIT 960	HREZ	n/a
Pakistan	National TB Control Programme, Pakistan and San Raffaele Hospital, Milan	Pakistan	Italy	LJ proportion method	HREZ	H 0.2µg/mL; R 40µg/mL; E 2µg/mL; Z 100µg/mL
Lima, Peru	Lima, Peru and London School of Hygiene and Tropical Medicine, UK	Peru	UK	MODS	HR	H 0.4µg/mL; R 1.0µg/mL
Serbia	University of Belgrade, Serbia and Forschungszentrum Borstel, Germany	Serbia	Serbia	MGIT 960	HREZ	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
South Africa	NICD, Johannesburg, South Africa	South Africa	South Africa	MGIT 960	HREZ	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
Valencia, Spain	Valencia, Spain	Spain	Spain	MGIT 960	HREZ	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
Thailand	National University of Singapore	Thailand	Singapore	Middlebrooks 7H10 Agar	HRE	H 0.2µg/mL; R 1.0µg/mL; E 5.0µg/mL
New South Wales, Australia	University of Sydney, Australia	Australia	Australia	MGIT 960	HREZ	H 0.1µg/mL; R 1µg/mL; E 5µg/mL; Z 100µg/mL
Shanghai, China	Yang et. al. Lancet Infect Diseases 2017 (PMID: 27919643)	China	China	MGIT 960	HRE	H 0.1µg/mL; R 1µg/mL; E 5µg/mL
China	Zhang et. al. Nat Genet. 2013 (PMID: 23995137)	China	China	Agar proportion	HRE	H 0.2µg/mL; R 40µg/mL; E 2µg/mL

Table S1, details

labnumber	source	country	lineage	SRA	Bioproject	Phenotype				Prediction			
						Isoniazid	Rifampicin	Ethambutol	Pyrazinamide	Isoniazid	Rifampicin	Ethambutol	Pyrazinamide
S15	University of Sydney	Australia	Beijing	SRR2333215	PRJNA270697	R	R	S	R	R	R	R	R
S43	University of Sydney	Australia	Beijing	SRR2328057	PRJNA270697	R	S	S	R	R	S	S	R
S6	University of Sydney	Australia	lineage4	SRR6369878	PRJNA393378	R	R	S	R	R	S	S	R
S27	University of Sydney	Australia	Beijing	SRR6339651	PRJNA393378	R	R	R	S	R	R	R	S
S3	University of Sydney	Australia	LAM	SRR6369876	PRJNA393378	R	R	S	R	R	R	R	R
S11	University of Sydney	Australia	Beijing	SRR6339662	PRJNA393378	R	R	S	S	R	R	R	R
S37	University of Sydney	Australia	Beijing	SRR6339664	PRJNA393378	R	R	S	S	R	R	S	S
S19	University of Sydney	Australia	LAM	SRR5817471	PRJNA393378	R	R	S	R	R	R	S	S
S18	University of Sydney	Australia	Delhi	SRR5817467	PRJNA393378	R	R	S	S	R	R	S	S
S4	University of Sydney	Australia	Beijing	SRR6369875	PRJNA393378	R	R	S	R	S	F	S	S
S21	University of Sydney	Australia	EAI	SRR6367396	PRJNA393378	R	R	S	S	S	S	S	S
S28	University of Sydney	Australia	lineage4	SRR6339645	PRJNA393378	R	R	S	S	S	R	U	S
S44	University of Sydney	Australia	Beijing	SRR6369877	PRJNA393378	R	S	R	S	R	S	R	S
S2	University of Sydney	Australia	Beijing	SRR5817478	PRJNA393378	R	R	S	R	R	R	R	R
S22	University of Sydney	Australia	Delhi	SRR6339641	PRJNA393378	R	R	S	S	R	R	S	S
S31	University of Sydney	Australia	EAI	SRR6339667	PRJNA393378	R	S	R	S	R	S	R	S
S30	University of Sydney	Australia	Delhi	SRR6339661	PRJNA393378	R	R	S	S	R	R	R	R
S33	University of Sydney	Australia	LAM	SRR5817480	PRJNA393378	R	R	S	S	R	R	R	S
S26	University of Sydney	Australia	Haarlem	SRR6339648	PRJNA393378	R	R	S	S	R	R	S	S
S29	University of Sydney	Australia	EAI	SRR6339653	PRJNA393378	R	R	R	R	R	R	R	R
S13	University of Sydney	Australia	Beijing	SRR6367401	PRJNA393378	R	R	R	R	R	R	R	R
S20	University of Sydney	Australia	Beijing	SRR6339640	PRJNA393378	R	R	S	R	R	R	R	R
S8	University of Sydney	Australia	Beijing	SRR6339666	PRJNA393378	R	R	S	R	R	R	R	R
S25	University of Sydney	Australia	LAM	SRR6339637	PRJNA393378	R	R	S	S	R	R	S	S
S17	University of Sydney	Australia	Beijing	SRR6339643	PRJNA393378	R	R	R	R	R	R	R	R
S39	University of Sydney	Australia	Beijing	SRR5817472	PRJNA393378	R	R	R	R	S	F	F	F
S10	University of Sydney	Australia	Beijing	SRR5817475	PRJNA393378	R	R	S	S	R	R	S	S
S16	University of Sydney	Australia	Beijing	SRR5817469	PRJNA393378	R	R	R	R	R	R	R	R
S14	University of Sydney	Australia	Beijing	SRR5817464	PRJNA393378	R	R	R	R	R	R	R	R
S34	University of Sydney	Australia	Haarlem	SRR5817470	PRJNA393378	R	R	R	R	R	R	R	R
S35	University of Sydney	Australia	Tur	SRR6339649	PRJNA393378	R	R	R	S	R	R	R	S
S23	University of Sydney	Australia	EAI	SRR5817479	PRJNA393378	R	R	S	R	R	R	R	R
S42	University of Sydney	Australia	Beijing	SRR6339665	PRJNA393378	R	S	S	R	R	S	S	R
S38	University of Sydney	Australia	Beijing	SRR5817473	PRJNA393378	R	R	S	R	R	R	U	R
S9	University of Sydney	Australia	EAI	SRR6339644	PRJNA393378	R	R	R	R	R	R	R	R
S1	University of Sydney	Australia	EAI	SRR6367399	PRJNA393378	R	R	R	R	R	R	R	R
S32	University of Sydney	Australia	EAI	SRR5817481	PRJNA393378	R	R	R	S	R	F	R	F
S41	University of Sydney	Australia	Beijing	SRR6367398	PRJNA393378	R	R	S	R	R	R	R	F
S36	University of Sydney	Australia	Beijing	SRR5817466	PRJNA393378	R	R	R	R	R	F	R	R
S12	University of Sydney	Australia	Delhi	SRR6339642	PRJNA393378	R	R	R	R	R	R	R	R
S7	University of Sydney	Australia	Delhi	SRR5817463	PRJNA393378	R	R	S	S	R	R	R	S
S5	University of Sydney	Australia	Beijing	SRR6367400	PRJNA393378	R	R	R	S	R	R	R	S
12MY1752	Genoscreen	Belgium	lineage4			R	R	R	R	R	R	R	R
10MY0917	Genoscreen	Belgium	lineage4			R	R	R	R	R	R	R	U
13MY0792	Genoscreen	Belgium	lineage4			S	S	S	S	S	S	S	S
13MY0573	Genoscreen	Belgium	lineage4			S	S	S	S	S	S	S	S
13MY0452	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
13MY0772	Genoscreen	Belgium	LAM			S	S	S	S	S	S	S	S
13MY1139	Genoscreen	Belgium	Delhi			S	S	S	S	S	S	S	S
13MY0669	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
13MY1440	Genoscreen	Belgium	S-type			S	S	S	S	S	S	S	S
12MY1792	Genoscreen	Belgium	LAM			R	R	S	R	R	R	R	R
07MY0662	Genoscreen	Belgium	lineage4			R	R	R	n/a	R	R	R	S
10MY1099	Genoscreen	Belgium	Beijing			R	R	R	R	R	R	R	R
13MY1270	Genoscreen	Belgium	lineage4			R	R	S	S	R	R	S	S
13MY1250	Genoscreen	Belgium	Haarlem			S	S	S	S	F	F	S	F
13MY2090	Genoscreen	Belgium	Delhi			S	S	S	S	S	S	S	S
11MY0618	Genoscreen	Belgium	LAM			R	R	R	R	R	R	R	R
08MY1539	Genoscreen	Belgium	Beijing			S	S	S	R	S	S	U	S
08MY0449	Genoscreen	Belgium	Beijing			R	R	R	R	R	R	R	R
13MY1366	Genoscreen	Belgium	S-type			S	S	S	S	S	S	S	S
13MY2169	Genoscreen	Belgium	LAM			S	S	S	S	S	S	S	S
09MY0190	Genoscreen	Belgium	Beijing			R	R	R	S	R	R	R	R
13MY2158	Genoscreen	Belgium	Haarlem			S	S	S	S	S	U	S	S
14MY0713	Genoscreen	Belgium	Beijing			R	R	R	R	R	R	R	S
13MY0539	Genoscreen	Belgium	BCG			S	S	S	R	S	S	U	R
08MY1353	Genoscreen	Belgium	Haarlem			R	R	S	n/a	U	R	S	S
13MY0773	Genoscreen	Belgium	BCG			S	S	S	R	S	S	S	R
15MY0145	Genoscreen	Belgium	Tur			R	R	S	S	R	R	S	R
13MY1143	Genoscreen	Belgium	lineage4			S	S	S	S	S	S	U	S
13MY1533	Genoscreen	Belgium	Beijing			S	S	S	S	S	S	S	S
13MY0570	Genoscreen	Belgium	Uganda			S	S	S	S	S	S	S	S
14MY0112	Genoscreen	Belgium	Beijing			R	R	R	R	R	R	R	R
13MY1206	Genoscreen	Belgium	lineage4			S	S	S	S	U	S	S	S
11MY0284	Genoscreen	Belgium	Beijing			R	R	R	R	R	R	R	S
14MY1450	Genoscreen	Belgium	Haarlem			R	R	R	R	S	R	R	R
13MY0526	Genoscreen	Belgium	S-type			S	S	S	S	S	S	S	S
13MY0757	Genoscreen	Belgium	LAM			S	S	S	S	S	S	U	S
13MY1824	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
13MY0319	Genoscreen	Belgium	Beijing			R	R	S	S	R	R	R	R
13MY1058	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
13MY1372	Genoscreen	Belgium	S-type			S	S	S	S	S	S	S	S
11MY1855	Genoscreen	Belgium	LAM			R	R	R	R	R	R	R	R
13MY1557	Genoscreen	Belgium	M. bovis			S	S	S	R	S	S	S	S
08MY0205	Genoscreen	Belgium	LAM			R	R	R	S	R	R	R	S
08MY1581	Genoscreen	Belgium	Beijing			R	R	R	R	R	R	R	U
13MY1309	Genoscreen	Belgium	Delhi			S	S	S	S	S	S	S	S
13MY1985	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
13MY1307	Genoscreen	Belgium	LAM			S	S	S	S	S	S	S	S
13MY0494	Genoscreen	Belgium	Beijing			R	R	R	R	R	R	R	R
14MY2137	Genoscreen	Belgium	Beijing			R	R	S	R	R	R	F	F
13MY0586	Genoscreen	Belgium	BCG			S	S	S	R	S	S	S	R
13MY1114	Genoscreen	Belgium	lineage4			S	S	S	S	U	S	S	S
08MY0349	Genoscreen	Belgium	Beijing			R	R	R	R	R	R	R	R
13MY1467	Genoscreen	Belgium	S-type			S	S	S	S	S	S	S	S
08MY0385	Genoscreen	Belgium	Beijing			R	R	S	S	U	R	S	S
14MY1571	Genoscreen	Belgium	lineage4			R	R	S	R	R	R	S	R
13MY2082	Genoscreen	Belgium	Haarlem			S	S	S	S	S	U	S	S
13MY2202	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
13MY1123	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
13MY1199	Genoscreen	Belgium	LAM			S	S	S	S	S	S	S	S
13MY1221	Genoscreen	Belgium	lineage4			S	S	S	S	S	S	S	S
09MY0467	Genoscreen	Belgium	Beijing			R	R	R	R	R	R	R	S
13MY1311	Genoscreen	Belgium	lineage4			S	S	S	S	S	S	S	S
13MY0822	Genoscreen	Belgium	lineage4			S	S	S	S	S	S	S	S
07MY1001	Genoscreen	Belgium	Beijing			R	R	R	n/a	R	R	R	R
13MY1442	Genoscreen	Belgium	Beijing			R	R	R	R	R	R	R	R
13MY2048	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
07MY0942	Genoscreen	Belgium	Uganda			R	R	R	n/a	R	R	R	R
13MY0518	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
13MY1981	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
13MY0965	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
13MY1265	Genoscreen	Belgium	Haarlem			S	S	S	S	S	S	S	S
07MY0789	Genoscreen	Belgium	Uganda			R	R	R	n/a	R	R	R	R

13MY1937	Genoscreen	Belgium	LAM	S	S	S	S	S	S	S	S
13MY0475	Genoscreen	Belgium	Haarlem	S	S	S	S	S	S	S	S
09MY1304	Genoscreen	Belgium	Beijing	R	R	S	S	R	R	U	S
12MY0223	Genoscreen	Belgium	lineage4	R	R	S	S	R	R	S	S
13MY1983	Genoscreen	Belgium	lineage4	S	S	S	S	S	S	S	S
07MY0788	Genoscreen	Belgium	Beijing	R	R	R	n/a	R	R	R	R
13MY1065	Genoscreen	Belgium	Beijing	S	S	S	S	U	S	S	S
11MY0630	Genoscreen	Belgium	Delhi	R	R	S	R	R	R	R	R
13MY1323	Genoscreen	Belgium	S-type	S	S	S	S	S	S	S	S
13MY0578	Genoscreen	Belgium	lineage4	S	S	S	S	S	S	S	S
12MY1157	Genoscreen	Belgium	Beijing	R	R	R	R	R	R	R	R
12MY1487	Genoscreen	Belgium	Beijing	R	R	S	R	U	R	S	R
13MY0866	Genoscreen	Belgium	LAM	S	S	S	S	S	S	S	S
09MY0426	Genoscreen	Belgium	Beijing	R	R	R	R	R	R	R	U
13MY2189	Genoscreen	Belgium	lineage4	S	S	S	S	S	U	S	S
13MY1127	Genoscreen	Belgium	Haarlem	S	S	S	S	S	S	S	S
13MY1163	Genoscreen	Belgium	lineage4	S	S	S	S	S	S	S	U
13MY1581	Genoscreen	Belgium	Cameroon	S	S	S	S	S	S	S	S
13MY1003	Genoscreen	Belgium	lineage4	S	S	S	S	S	S	S	S
11MY0214	Genoscreen	Belgium	Beijing	R	R	R	R	R	R	R	R
13MY1864	Genoscreen	Belgium	lineage4	S	S	S	S	S	S	S	S
11MY1117	Genoscreen	Belgium	LAM	R	R	R	S	R	R	U	S
13MY1095	Genoscreen	Belgium	BCG	S	S	S	R	S	S	S	R
10MY1264	Genoscreen	Belgium	Beijing	R	R	S	S	R	R	S	S
13MY1825	Genoscreen	Belgium	LAM	S	S	S	S	S	S	S	S
13MY0969	Genoscreen	Belgium	Ural	S	S	S	S	S	S	S	S
13MY1216	Genoscreen	Belgium	Ghana	S	S	S	S	S	S	S	S
13MY1867	Genoscreen	Belgium	LAM	S	S	S	S	S	S	U	S
11MY0596	Genoscreen	Belgium	Beijing	R	R	R	R	R	R	R	R
13MY1106	Genoscreen	Belgium	EAI	S	S	S	S	S	S	S	S
13MY1164	Genoscreen	Belgium	West Africar	S	S	S	S	S	U	U	S
13MY0803	Genoscreen	Belgium	Haarlem	S	S	S	S	S	S	U	S
13MY0702	Genoscreen	Belgium	Haarlem	S	S	S	S	S	S	S	S
07MY1281	Genoscreen	Belgium	Beijing	R	R	R	R	R	R	R	R
13MY1832	Genoscreen	Belgium	lineage4	S	S	S	S	S	S	S	S
15MY0479	Genoscreen	Belgium	Ural	R	R	S	S	R	R	U	S
07MY0066	Genoscreen	Belgium	Beijing	R	R	R	n/a	R	R	R	R
08MY1602	Genoscreen	Belgium	LAM	R	R	R	R	R	R	R	R
12MY1124	Genoscreen	Belgium	Delhi	R	R	S	S	R	R	S	S
13MY0537	Genoscreen	Belgium	LAM	S	S	S	S	S	S	S	S
13MY0802	Genoscreen	Belgium	Haarlem	S	S	S	R	S	S	S	S
13MY2167	Genoscreen	Belgium	S-type	S	S	S	S	S	S	S	S
14MY1492	Genoscreen	Belgium	Beijing	R	R	R	R	R	R	R	R
14MY1932	Genoscreen	Belgium	Haarlem	R	R	S	R	R	R	R	U
13MY0734	Genoscreen	Belgium	EAI	S	S	S	R	S	S	S	S
08MY1520	Genoscreen	Belgium	Beijing	R	R	R	R	R	R	R	R
14s464	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	S
10s433	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	S
A9s165	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	R	S	S	n/a	R	S	S
10s098	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	S
13s341	British Columbia Centre for Disease Control	Canada	S-type	PRJNA413593	S	S	S	n/a	S	S	S
14s364	British Columbia Centre for Disease Control	Canada	Delhi	PRJNA413593	R	S	S	S	R	S	S
A9s053	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	S
11s419	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	R	R	S	R	R	R	R
11s350	British Columbia Centre for Disease Control	Canada	Ural	PRJNA413593	S	S	S	n/a	S	S	S
A6s148	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	S	S	S
13s039	British Columbia Centre for Disease Control	Canada	lineage4	PRJNA413593	S	S	S	n/a	S	S	U
A4s024	British Columbia Centre for Disease Control	Canada	LAM	PRJNA413593	S	S	S	n/a	S	S	S
A8s260	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	R	S	S	n/a	R	S	S
A6s372	British Columbia Centre for Disease Control	Canada	S-type	PRJNA413593	S	S	S	n/a	S	U	S
13s350	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	S
A7s071	British Columbia Centre for Disease Control	Canada	lineage4	PRJNA413593	S	S	S	n/a	S	S	S
10s195	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	S	S	S
A7s217	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	S	S	S
A8s145	British Columbia Centre for Disease Control	Canada	Delhi	PRJNA413593	S	S	S	n/a	S	S	S
A6s145	British Columbia Centre for Disease Control	Canada	lineage4	PRJNA413593	S	S	S	n/a	S	S	S
14s063	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	S
10s354	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	S
11s045	British Columbia Centre for Disease Control	Canada	S-type	PRJNA413593	S	S	S	n/a	S	S	S
A5s023	British Columbia Centre for Disease Control	Canada	lineage4	PRJNA413593	R	S	S	n/a	R	S	S
12s051	British Columbia Centre for Disease Control	Canada	LAM	PRJNA413593	S	S	S	n/a	S	S	S
A6s400	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	S
A5s137	British Columbia Centre for Disease Control	Canada	S-type	PRJNA413593	S	S	S	n/a	S	S	S
13s450	British Columbia Centre for Disease Control	Canada	Delhi	PRJNA413593	S	S	S	n/a	S	S	S
A8s057	British Columbia Centre for Disease Control	Canada	Ural	PRJNA413593	S	S	S	n/a	S	S	S
11s234	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	R	S	S	S	R	S	S
A8s259	British Columbia Centre for Disease Control	Canada	Haarlem	PRJNA413593	S	S	S	n/a	S	S	S
14s316	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	R	S	S	S	R	S	S
12s384	British Columbia Centre for Disease Control	Canada	lineage4	PRJNA413593	S	S	S	n/a	S	S	S
A7s235	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	R	R	R	R	R	R	R
A6s187	British Columbia Centre for Disease Control	Canada	Haarlem	PRJNA413593	S	S	S	n/a	S	S	S
13s446	British Columbia Centre for Disease Control	Canada	Delhi	PRJNA413593	S	S	S	n/a	U	S	S
11s386	British Columbia Centre for Disease Control	Canada	LAM	PRJNA413593	S	S	S	n/a	S	S	S
A6s025	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	S	U	S
A5s298	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	U
A5s070	British Columbia Centre for Disease Control	Canada	S-type	PRJNA413593	S	S	S	n/a	S	U	S
A5s043	British Columbia Centre for Disease Control	Canada	Delhi	PRJNA413593	R	S	S	S	R	S	S
A2s309	British Columbia Centre for Disease Control	Canada	Delhi	PRJNA413593	S	S	S	n/a	S	S	S
14s308	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	R	S	S	S	U	S	U
10s171	British Columbia Centre for Disease Control	Canada	lineage4	PRJNA413593	S	S	S	n/a	S	S	S
A5s172	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	U	S	S
A9s079	British Columbia Centre for Disease Control	Canada	LAM	PRJNA413593	R	S	R	n/a	R	S	R
12s025	British Columbia Centre for Disease Control	Canada	lineage4	PRJNA413593	R	S	S	S	R	S	S
A8s323	British Columbia Centre for Disease Control	Canada	Delhi	PRJNA413593	R	R	R	R	R	R	R
11s357	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	R	S	S	S	R	S	S
A7s265	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	n/a	S	S	S	S	S	S
A8s083	British Columbia Centre for Disease Control	Canada	lineage4	PRJNA413593	S	S	S	n/a	S	S	S
12s343	British Columbia Centre for Disease Control	Canada	S-type	PRJNA413593	S	S	S	n/a	S	U	S
A5s131	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	S	S	S
12s182	British Columbia Centre for Disease Control	Canada	Tur	PRJNA413593	R	S	S	S	R	S	R
10s312	British Columbia Centre for Disease Control	Canada	Ural	PRJNA413593	S	S	S	n/a	S	S	S
10s348	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	S	S	S
11s159	British Columbia Centre for Disease Control	Canada	LAM	PRJNA413593	S	S	S	n/a	S	S	U
A9s029	British Columbia Centre for Disease Control	Canada	S-type	PRJNA413593	S	S	S	n/a	U	S	S
10s020	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	S	S	S
A7s267	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	S
10s291	British Columbia Centre for Disease Control	Canada	Ural	PRJNA413593	S	S	S	n/a	S	S	S
13s095	British Columbia Centre for Disease Control	Canada	Haarlem	PRJNA413593	S	S	S	n/a	S	S	S
11s411	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	S	S	S
14s482	British Columbia Centre for Disease Control	Canada	Ural	PRJNA413593	S	S	S	n/a	S	S	S
13s320	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	S	S	S
A8s004	British Columbia Centre for Disease Control	Canada	EAI	PRJNA413593	S	S	S	n/a	S	S	S
A7s159	British Columbia Centre for Disease Control	Canada	Ural	PRJNA413593	S	S	S	n/a	S	S	S
A9s356	British Columbia Centre for Disease Control	Canada	Delhi	PRJNA413593	S	S	S	n/a	S	S	S
A8s220	British Columbia Centre for Disease Control	Canada	Haarlem	PRJNA413593	S	S	S	n/a	S	S	S
10s205	British Columbia Centre for Disease Control	Canada	Beijing	PRJNA413593	S	S	S	n/a	S	S	S

09_0716	Yang et al. Lancet Infect Dis. 2017 Mar;17(3):275-284	China	Beijing	SRS935926	SRP058221	R	R	S	n/a	R	R	S	S
12_0583	Yang et al. Lancet Infect Dis. 2017 Mar;17(3):275-284	China	Beijing	SRS935920	SRP058221	R	R	R	n/a	R	R	R	S
BGI_252	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671867		R	R	S	n/a	R	R	U	R
BGI_HEN06035	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671856		S	S	S	n/a	S	S	S	S
BGI_B-160	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671723		S	S	S	n/a	S	R	S	S
BGI_LN228	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671796		R	R	R	n/a	R	R	R	U
BGI_J-x09105	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671735		R	R	S	n/a	R	R	U	S
BGI_SH171	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671808		S	S	S	n/a	S	S	S	S
BGI_GuangZ8	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671726		R	R	R	n/a	R	R	R	R
BGI_GZ066	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671843		R	R	S	n/a	R	R	U	S
BGI_J-x09061	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671734		R	R	S	n/a	R	R	S	S
BGI_140	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671722		R	R	S	n/a	R	R	U	R
BGI_FJ05189	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671757		R	R	S	n/a	U	R	R	R
BGI_GuangZ0016	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	S-type	SR671861		R	R	S	n/a	R	R	R	R
BGI_GuangZ0026	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	S-type	SR671862		R	R	R	n/a	R	R	U	R
BGI_XJ06007	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671871		S	S	S	n/a	S	S	S	S
BGI_GZ119	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671837		R	R	R	n/a	R	R	R	U
BGI_LN373	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671854		R	R	R	n/a	R	R	F	U
BGI_144	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671869		R	R	S	n/a	R	R	U	U
BGI_LN236	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671799		R	R	R	n/a	R	R	U	R
BGI_XZ06030	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671838		R	R	S	n/a	R	R	F	S
BGI_SH166	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671806		R	R	R	n/a	R	R	R	F
BGI_FJ07070	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671842		R	R	R	n/a	R	R	R	R
BGI_SH311	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671815		R	R	R	n/a	R	R	R	R
BGI_NM11008	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671870		S	S	S	n/a	S	S	S	S
BGI_SH327	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671816		R	R	S	n/a	S	R	F	R
BGI_NM11014	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671876		S	S	S	n/a	S	S	S	S
BGI_U-x09006	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671745		R	R	S	n/a	R	R	S	S
BGI_L-x09102	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671736		R	R	S	n/a	R	R	U	S
BGI_SHK05178	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671853		R	R	S	n/a	U	R	R	S
BGI_FJ05136	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671752		R	R	S	n/a	R	R	R	F
BGI_XJ06090	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671874		S	S	S	n/a	S	S	S	S
BGI_LN270	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671801		R	R	S	n/a	R	R	R	S
BGI_BJ05026	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671859		S	S	S	n/a	S	S	S	S
BGI_GZ10125	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671768		R	R	S	n/a	R	R	S	S
BGI_V-x09011	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671746		R	R	S	n/a	R	R	S	S
BGI_XZ06017	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671848		R	R	S	n/a	R	R	U	S
BGI_XZ06217	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671840		R	R	R	n/a	R	R	U	S
BGI_Q-x09122	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671742		R	R	S	n/a	R	R	R	F
BGI_Y-x09033	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671747		S	S	S	n/a	S	S	S	S
BGI_336	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671866		R	R	R	n/a	R	R	R	R
BGI_SH361	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671820		R	R	S	n/a	R	R	R	S
BGI_NM11011	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671877		S	S	S	n/a	S	S	S	S
BGI_SH127	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671795		R	R	S	n/a	R	R	R	U
BGI_SH292	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671813		R	R	R	n/a	U	R	R	S
BGI_A-x09095	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671727		R	R	S	n/a	U	R	F	F
BGI_40195	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671780		R	R	S	n/a	F	R	F	S
BGI_GuangZ0017	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671864		R	R	R	n/a	R	R	R	R
BGI_X-x09017	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671738		R	R	S	n/a	R	R	R	S
BGI_GZ104	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671845		R	R	R	n/a	U	R	R	S
BGI_SH519	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671798		R	R	S	n/a	R	R	U	S
BGI_P-x09119	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Delhi	SR671741		S	S	S	n/a	S	S	S	S
BGI_SH390	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671822		R	R	R	n/a	R	R	R	R
BGI_LN151	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671792		S	S	S	n/a	S	S	S	S
BGI_GZ10115	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671771		R	R	R	n/a	R	R	R	U
BGI_315	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671724		R	R	R	n/a	R	R	R	R
BGI_SH287	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671812		R	R	S	n/a	R	R	R	U
BGI_FJ05121	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671750		R	R	S	n/a	R	R	R	F
BGI_FJ05132	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671751		R	R	R	n/a	R	R	R	R
BGI_FJ05141	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671841		R	R	R	n/a	R	R	R	F
BGI_R-x09105	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671743		R	R	S	n/a	R	R	U	S
BGI_FJ05112	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671748		R	R	R	n/a	R	R	F	R
BGI_10	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	LAM	SR671775		S	S	S	n/a	S	S	S	S
BGI_LN175	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671797		R	R	R	n/a	R	R	R	R
BGI_FJ05474	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	S-type	SR671764		S	S	S	n/a	S	S	S	S
BGI_LN007	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671788		S	S	S	n/a	S	S	U	S
BGI_GuangZ29	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	S-type	SR671790		R	R	R	n/a	S	U	S	S
BGI_XZ06194	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671851		R	R	R	n/a	R	R	R	R
BGI_322	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671720		R	R	R	n/a	R	R	R	S
BGI_GZ077	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671834		R	R	R	n/a	R	R	S	S
BGI_SH396	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671823		S	S	S	n/a	S	S	S	S
BGI_LN018	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671855		R	R	R	n/a	R	R	U	R
BGI_LN230	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671829		R	R	S	n/a	R	R	R	S
BGI_GuangZ0008	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671863		R	R	R	n/a	R	R	R	R
BGI_XZ06055	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671850		R	R	R	n/a	R	R	R	U
BGI_GuangZ6	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	S-type	SR671725		R	R	R	n/a	R	R	R	R
BGI_HEN05034	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671857		R	R	R	n/a	R	R	S	S
BGI_LN077	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671787		R	R	R	n/a	R	R	R	R
BGI_FJ05060	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	S-type	SR671762		S	S	S	n/a	S	S	U	S
BGI_G-x09148	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671732		R	R	R	n/a	R	R	S	S
BGI_XJ06017	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	S-type	SR671878		S	S	S	n/a	S	S	S	S
BGI_GZ10108	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671765		R	R	R	n/a	R	R	R	S
BGI_GZ10145	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671773		S	S	S	n/a	S	S	S	S
BGI_SH068	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671811		R	R	R	n/a	R	R	R	R
BGI_SH404	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671825		R	R	R	n/a	R	R	R	R
BGI_SH002	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671804		R	R	R	n/a	R	R	R	F
BGI_SH060	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671810		R	R	R	n/a	R	R	R	R
BGI_GZ126	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671846		S	S	S	n/a	S	S	S	S
BGI_BJ05010	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671858		S	S	S	n/a	S	S	S	S
BGI_SH477	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671793		S	S	S	n/a	S	S	S	S
BGI_FJ09132	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671754		R	R	R	n/a	R	R	R	F
BGI_GuangZ24	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671789		R	R	S	n/a	R	R	R	R
BGI_FJ09114	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671756		R	R	R	n/a	R	R	R	R
BGI_GZ10059	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671769		R	R	R	n/a	R	R	R	S
BGI_E-x09109	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671730		S	S	S	n/a	S	S	S	S
BGI_SH298	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671814		S	S	S	n/a	S	S	S	S
BGI_143	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	lineage4	SR671868		R	R	R	n/a	R	R	U	F
BGI_SH147	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671805		S	S	S	n/a	S	S	S	S
BGI_GZ113	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671836		R	R	S	n/a	U	S	S	S
BGI_SH400	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671824		R	R	S	n/a	R	R	R	R
BGI_BJ05043	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	S-type	SR671860		S	S	S	n/a	S	S	U	S
BGI_SH415	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671826		R	R	R	n/a	R	R	R	R
BGI_SH340	Zhang et al. Nat Genet. 2013 Oct;45(10):1255-60	China	Beijing	SR671819		R	R</						

Italy_MGITTOUNAW	Italy_MGITstudy	Italy	Tur	S	S	S	S	S	S	S	S
Italy_MGITVOFLO	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	S	S	S
Italy_MGITPALG2	Italy_MGITstudy	Italy	LAM	S	S	S	S	S	F	S	S
Italy_MGITAMBF	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGIT72	Italy_MGITstudy	Italy	Ural	S	S	S	S	S	S	S	S
Italy_MGIT42	Italy_MGITstudy	Italy	Beijing	S	S	S	S	S	S	S	S
Italy_MGIT46	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGIT121	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	S	S	S
Italy_MGITMELAL	Italy_MGITstudy	Italy	S-type	S	S	S	S	S	S	S	S
Italy_MGITPIMO	Italy_MGITstudy	Italy		R	S	S	S	U	S	S	S
Italy_MGITMARK	Italy_MGITstudy	Italy	lineage4	S	S	S	S	U	F	S	S
Italy_MGIT86	Italy_MGITstudy	Italy	LAM	S	S	S	S	S	S	S	S
Italy_MGIT74	Italy_MGITstudy	Italy	Delhi	S	S	S	S	S	S	S	S
Italy_MGIT_BENP	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	F	S	S	S
Italy_MGIT88	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGITBEQU	Italy_MGITstudy	Italy	EAI	S	S	S	S	S	S	S	S
Italy_MGIT76	Italy_MGITstudy	Italy	West Africar	S	S	S	S	S	U	U	S
Italy_MGIT54	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	U	S	S	S
Italy_MGIT117	Italy_MGITstudy	Italy	S-type	S	S	S	S	S	S	S	S
Italy_MGIT64	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	S	S	S
Italy_MGIT44	Italy_MGITstudy	Italy	EAI	S	S	S	S	S	S	S	S
Italy_MGIT98	Italy_MGITstudy	Italy	Beijing	S	S	S	S	S	F	S	S
Italy_MGIT96	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	F	S	S	F
Italy_MGIT108	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	U	S
Italy_MGIT65	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGIT62	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGIT77	Italy_MGITstudy	Italy	EAI	S	S	S	S	S	S	S	S
Italy_MGITDIYA	Italy_MGITstudy	Italy		R	S	S	S	R	S	S	S
Italy_MGIT50	Italy_MGITstudy	Italy	Beijing	S	S	S	n/a	S	S	R	R
Italy_MGIT52	Italy_MGITstudy	Italy	lineage4	R	R	R	R	R	R	R	R
Italy_MGIT80	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGIT69	Italy_MGITstudy	Italy	Tur	S	S	S	S	S	S	S	S
Italy_MGIT83	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	F	U	S
Italy_MGIT102	Italy_MGITstudy	Italy	Haarlem	S	S	S	R	S	S	S	R
Italy_MGIT90	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	U	S
Italy_MGIT53	Italy_MGITstudy	Italy	lineage4	R	R	R	R	R	F	R	R
Italy_MGIT59	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGITKEN	Italy_MGITstudy	Italy	Beijing	S	S	S	S	S	S	S	S
Italy_MGITCROCO	Italy_MGITstudy	Italy	lineage4	S	S	S	S	F	S	U	S
Italy_MGIT60	Italy_MGITstudy	Italy	Uganda	S	S	S	S	S	S	S	S
Italy_MGIT_PAGGL	Italy_MGITstudy	Italy	lineage4	S	S	S	S	F	S	S	S
Italy_MGIT79	Italy_MGITstudy	Italy	EAI	S	S	S	S	S	S	S	S
Italy_MGIT5OW	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	F	S	S	S
Italy_MGIT51	Italy_MGITstudy	Italy	LAM	R	S	S	S	R	S	S	S
Italy_MGIT73	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGIT100	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGITDIMOU	Italy_MGITstudy	Italy	EAI	S	S	S	S	F	S	U	S
Italy_MGIT55	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGIT99	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	S	U	S
Italy_MGIT92	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGIT101	Italy_MGITstudy	Italy	S-type	S	S	S	S	S	S	S	S
Italy_MGIT43	Italy_MGITstudy	Italy		R	S	S	S	R	S	S	S
Italy_MGITAH5	Italy_MGITstudy	Italy	Uganda	S	S	S	S	S	S	S	S
Italy_MGIT67	Italy_MGITstudy	Italy	West Africar	S	S	S	S	S	U	U	S
Italy_MGIT94	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	S	S	S
Italy_MGIT_SABD	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	S	S	S
Italy_MGIT63	Italy_MGITstudy	Italy	EAI	S	S	S	S	S	S	S	S
Italy_MGITDPB	Italy_MGITstudy	Italy	West Africar	S	S	S	S	S	U	U	S
Italy_MGIT_MANA	Italy_MGITstudy	Italy	S-type	S	S	S	S	S	S	S	S
Italy_MGIT113	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	S	S	S
Italy_MGIT97	Italy_MGITstudy	Italy	LAM	S	S	S	S	S	S	S	S
Italy_MGIT82	Italy_MGITstudy	Italy	West Africar	S	S	S	S	S	U	U	S
Italy_MGIT107	Italy_MGITstudy	Italy	Beijing	S	S	S	S	S	S	S	S
Italy_MGIT114	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGITTU	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	S	S	S
Italy_MGIT66	Italy_MGITstudy	Italy	Beijing	R	S	S	S	S	S	S	S
Italy_MGIT87	Italy_MGITstudy	Italy	LAM	R	S	S	S	R	F	S	S
Italy_MGIT47	Italy_MGITstudy	Italy	Ural	S	S	S	S	S	S	S	S
Italy_MGIT61	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	S	S	S
Italy_MGIT109	Italy_MGITstudy	Italy	Beijing	S	S	S	S	S	S	U	S
Italy_MGIT85	Italy_MGITstudy	Italy	LAM	S	S	S	S	S	F	R	S
Italy_MGIT116	Italy_MGITstudy	Italy	S-type	S	S	S	S	S	S	S	S
Italy_MGIT84	Italy_MGITstudy	Italy	LAM	R	R	R	R	R	F	R	R
Italy_MGITFRAU	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGIT118	Italy_MGITstudy	Italy	lineage4	S	S	S	S	S	S	S	S
Italy_MGIT75	Italy_MGITstudy	Italy	LAM	S	S	S	S	S	S	S	S
Italy_MGIT5OW2	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	F	S	S	S
Italy_MGIT105	Italy_MGITstudy	Italy	Haarlem	S	S	S	S	S	S	S	S
Italy_MGIT81	Italy_MGITstudy	Italy	Cameroon	S	S	S	S	S	F	S	S
Italy_MGITABOK	Italy_MGITstudy	Italy	Ghana	S	S	S	S	S	S	S	S
NLA009401354	Harvard	Netherlands	lineage4	R	R	S	n/a	U	R	U	R
NLA009601030	Harvard	Netherlands	Delhi	R	R	S	n/a	R	R	S	S
NLA000301128	Harvard	Netherlands	Haarlem	R	R	R	S	R	R	R	S
NLA009401480	Harvard	Netherlands	Tur	R	R	S	n/a	R	R	S	S
NLA009900478	Harvard	Netherlands	LAM	R	R	S	R	R	R	R	R
NLA009901354	Harvard	Netherlands	Ural	R	R	S	S	R	R	R	R
NLA000201001	Harvard	Netherlands	Tur	R	R	R	S	R	R	R	S
NLA009900895	Harvard	Netherlands	Beijing	R	R	R	S	R	R	R	S
NLA009402429	Harvard	Netherlands	Uganda	R	R	S	n/a	U	R	S	S
NLA000200042	Harvard	Netherlands	Beijing	R	R	R	n/a	R	R	F	R
NLA000700569	Harvard	Netherlands	LAM	R	R	R	R	R	R	R	R
NLA000001768	Harvard	Netherlands	LAM	R	R	S	S	R	R	U	R
NLA000400122	Harvard	Netherlands	LAM	R	R	S	S	R	R	S	S
NLA000401745	Harvard	Netherlands	Beijing	R	R	S	S	R	R	S	U
NLA000301149	Harvard	Netherlands	Haarlem	R	R	S	S	R	R	S	S
NLA009601360	Harvard	Netherlands	LAM	R	R	R	n/a	R	R	R	R
NLA000017744	Harvard	Netherlands	LAM	R	R	R	n/a	R	R	R	S
NLA000801695	Harvard	Netherlands	Beijing	R	R	R	n/a	R	R	U	R
NLA009901304	Harvard	Netherlands	lineage4	R	R	R	n/a	U	R	R	U
NLA000300848	Harvard	Netherlands	Haarlem	R	R	R	S	R	F	F	S
NLA009501837	Harvard	Netherlands	Haarlem	R	R	S	n/a	R	R	S	R
NLA009702191	Harvard	Netherlands	Tur	R	R	S	S	R	R	S	S
NLA009802070	Harvard	Netherlands	EAI	R	R	R	R	R	R	R	R
NLA009702403	Harvard	Netherlands	Cameroon	R	R	S	S	R	R	S	R
NLA000017891	Harvard	Netherlands	LAM	R	R	R	S	R	R	R	S
NLA009501599	Harvard	Netherlands	M. bovis	R	R	R	n/a	R	R	R	R
NLA000016604	Harvard	Netherlands	Haarlem	R	R	S	n/a	R	R	S	U
NLA000701259	Harvard	Netherlands	Beijing	R	R	R	R	R	R	R	R
NLA009700174	Harvard	Netherlands	Haarlem	R	R	S	S	R	R	U	S
NLA009400010	Harvard	Netherlands	Delhi	R	R	S	n/a	U	R	S	F
NLA000102124	Harvard	Netherlands	LAM	R	R	R	S	R	R	S	R
NLA009600800	Harvard	Netherlands	EAI	R	R	S	n/a	R	R	S	S
NLA009701938	Harvard	Netherlands	EAI	R	R	S	n/a	R	R	S	S
NLA000400074	Harvard	Netherlands	Ural	R	R	R	R	R	R	R	R
NLA000201392	Harvard	Netherlands	Beijing	R	R	R	S	R	R	R	R
NLA000101954	Harvard	Netherlands	Ghana	R	R	S	S	R	R	S	S

NL304	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	U	S
NL534	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	S	S
NL485	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL309	Netherlands	Netherlands	Ghana	S	S	S	n/a	S	S	S	S
NL315	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	S	S
NL108	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL156	Netherlands	Netherlands	Delhi	S	S	S	S	S	U	S	S
NL414	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL382	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	S	S
NL275	Netherlands	Netherlands	LAM	R	S	S	S	R	S	R	S
NL563	Netherlands	Netherlands	lineage4	S	S	S	n/a	S	S	S	S
NL549	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL003	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL082	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL439	Netherlands	Netherlands	LAM	S	S	S	S	S	S	U	S
NL072	Netherlands	Netherlands	Delhi	R	R	n/a	S	R	R	R	S
NL178	Netherlands	Netherlands	EAI	R	S	S	S	R	S	S	S
NL354	Netherlands	Netherlands	Tur	S	S	S	n/a	S	S	S	S
NL471	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	S	S
NL445	Netherlands	Netherlands	Cameroon	S	S	S	S	S	S	S	S
NL409	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL133	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL126	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	S	S
NL018	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	S	S
NL583	Netherlands	Netherlands	lineage4	S	S	S	n/a	S	U	S	S
NL207	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL480	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL167	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL380	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL232	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL204	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL361	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	U	S
NL456	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL452	Netherlands	Netherlands	Delhi	S	S	S	S	U	S	S	S
NL401	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL152	Netherlands	Netherlands	Cameroon	R	R	S	S	R	R	S	S
NL435	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL569	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL012	Netherlands	Netherlands	Beijing	R	S	S	S	R	S	S	S
NL479	Netherlands	Netherlands	S-type	S	S	S	S	S	S	S	S
NL343	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL176	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL104	Netherlands	Netherlands	S-type	S	S	S	n/a	S	S	U	S
NL599	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL266	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL500	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL295	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL069	Netherlands	Netherlands	EAI	S	S	S	S	S	S	U	S
NL609	Netherlands	Netherlands	LAM	R	S	S	S	R	S	S	S
NL134	Netherlands	Netherlands	S-type	S	S	S	n/a	S	S	U	S
NL043	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL574	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL611	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL181	Netherlands	Netherlands	LAM	S	S	S	n/a	S	S	S	S
NL400	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	S	S
NL058	Netherlands	Netherlands	S-type	S	S	S	S	S	S	S	S
NL572	Netherlands	Netherlands	EAI	S	S	S	R	S	S	U	S
NL422	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL493	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL586	Netherlands	Netherlands	LAM	S	S	S	S	S	S	U	S
NL249	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL283	Netherlands	Netherlands	Delhi	R	R	n/a	R	R	R	R	R
NL081	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL404	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL225	Netherlands	Netherlands	S-type	n/a	S	S	S	R	S	S	S
NL313	Netherlands	Netherlands	EAI	S	S	S	S	R	S	S	S
NL592	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL042	Netherlands	Netherlands	Beijing	S	S	S	S	S	S	S	S
NL415	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL490	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL132	Netherlands	Netherlands	S-type	S	S	S	S	S	S	S	S
NL088	Netherlands	Netherlands	S-type	S	S	S	n/a	S	S	U	S
NL005	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	S	S
NL379	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL155	Netherlands	Netherlands	Haarlem	n/a	S	S	S	R	S	S	S
NL107	Netherlands	Netherlands	Tur	S	S	S	S	S	S	S	S
NL154	Netherlands	Netherlands	Tur	S	S	S	S	F	S	S	S
NL022	Netherlands	Netherlands	Tur	S	S	S	n/a	S	S	S	S
NL412	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	U	S
NL371	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL478	Netherlands	Netherlands	Cameroon	S	S	S	S	S	S	S	S
NL297	Netherlands	Netherlands	Tur	S	S	S	S	S	S	S	S
NL221	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL466	Netherlands	Netherlands	Beijing	S	S	S	S	S	S	S	S
NL442	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL571	Netherlands	Netherlands	M. bovis	S	S	S	R	S	S	S	R
NL171	Netherlands	Netherlands	Beijing	n/a	S	S	S	R	S	S	S
NL537	Netherlands	Netherlands	Tur	S	S	S	S	S	S	S	S
NL296	Netherlands	Netherlands	EAI	S	S	S	S	S	S	U	S
NL587	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	U	S
NL095	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	U	S
NL458	Netherlands	Netherlands	M. bovis	S	S	S	R	S	S	S	R
NL405	Netherlands	Netherlands	Cameroon	S	S	S	S	S	S	U	S
NL120	Netherlands	Netherlands	EAI	S	S	S	R	S	S	U	S
NL498	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	S	S
NL501	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL163	Netherlands	Netherlands	Haarlem	S	S	S	n/a	S	S	S	S
NL157	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL420	Netherlands	Netherlands	Delhi	R	S	S	S	R	S	U	S
NL438	Netherlands	Netherlands	LAM	S	S	S	S	S	U	S	S
NL166	Netherlands	Netherlands	EAI	S	S	S	S	S	S	S	S
NL137	Netherlands	Netherlands	Haarlem	S	S	S	S	S	U	S	S
NL170	Netherlands	Netherlands	Tur	R	S	S	S	R	S	U	S
NL215	Netherlands	Netherlands	lineage4	S	S	S	S	S	S	U	S
NL378	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL462	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL535	Netherlands	Netherlands	LAM	S	S	S	S	S	S	S	S
NL372	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL230	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL598	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL486	Netherlands	Netherlands	Haarlem	S	S	S	S	S	S	S	S
NL308	Netherlands	Netherlands	lineage4	S	S	S	n/a	S	S	S	S
NL284	Netherlands	Netherlands	Beijing	S	S	S	S	S	S	S	S
NL540	Netherlands	Netherlands	Delhi	S	S	S	S	S	S	S	S
NL387	Netherlands	Netherlands	Delhi	S	S	S	S	F	U	U	S
NL209	Netherlands	Netherlands	Haarlem	S	S	S	n/a	S	S	S	S

NL246	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL381	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL292	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL180	Netherlands	Netherlands Beijing	S	S	S	S	S	S	S	S
NL538	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL048	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL289	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL321	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL511	Netherlands	Netherlands EAI	S	S	S	S	S	S	S	S
NL168	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL408	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL255	Netherlands	Netherlands M. caprae	S	S	S	S	S	S	S	S
NL169	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL546	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL350	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL578	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL144	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL397	Netherlands	Netherlands Delhi	S	S	S	n/a	S	S	S	S
NL239	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL227	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL199	Netherlands	Netherlands LAM	S	S	S	n/a	S	S	S	S
NL375	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL013	Netherlands	Netherlands Delhi	S	S	S	S	F	S	S	S
NL377	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL139	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL063	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL318	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL179	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL510	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL234	Netherlands	Netherlands EAI	S	S	S	S	S	S	S	S
NL505	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL294	Netherlands	Netherlands Tur	R	R	S	S	R	R	R	R
NL083	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL183	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL278	Netherlands	Netherlands Ural	S	S	S	S	S	S	S	S
NL521	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL307	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL595	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL019	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL527	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL484	Netherlands	Netherlands Beijing	S	S	S	S	S	S	S	S
NL582	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL413	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL477	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL268	Netherlands	Netherlands BCG	S	S	S	R	S	S	S	R
NL585	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL252	Netherlands	Netherlands Uganda	S	S	S	S	S	S	S	S
NL281	Netherlands	Netherlands Beijing	S	S	S	S	S	S	U	S
NL436	Netherlands	Netherlands West Africar	S	S	S	S	S	U	U	S
NL233	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL551	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL305	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL333	Netherlands	Netherlands Beijing	S	S	S	S	S	S	S	S
NL256	Netherlands	Netherlands Haarlem	S	S	S	n/a	S	S	S	S
NL562	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL038	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL312	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL025	Netherlands	Netherlands Beijing	S	S	S	S	S	S	S	S
NL314	Netherlands	Netherlands Beijing	S	S	S	S	S	S	S	S
NL533	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL614	Netherlands	Netherlands Beijing	S	S	S	S	U	S	S	S
NL050	Netherlands	Netherlands Beijing	S	S	S	S	U	S	U	S
NL216	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL389	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL186	Netherlands	Netherlands EAI	S	S	S	S	S	U	U	S
NL002	Netherlands	Netherlands EAI	S	S	S	S	S	S	S	S
NL055	Netherlands	Netherlands Uganda	S	S	S	S	S	S	S	S
NL504	Netherlands	Netherlands LAM	S	S	S	n/a	S	S	S	S
NL368	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL522	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL016	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL223	Netherlands	Netherlands LAM	R	S	S	S	R	S	R	S
NL411	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL074	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL257	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL218	Netherlands	Netherlands EAI	S	S	S	S	F	S	F	S
NL064	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL518	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL460	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL467	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL516	Netherlands	Netherlands Tur	R	R	n/a	R	R	R	R	R
NL150	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL142	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL373	Netherlands	Netherlands M. bovis	S	S	S	R	S	S	S	R
NL506	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL116	Netherlands	Netherlands lineage4	S	S	S	n/a	S	S	S	S
NL384	Netherlands	Netherlands EAI	S	S	S	S	S	S	S	S
NL211	Netherlands	Netherlands LAM	R	S	S	S	R	S	S	S
NL519	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL600	Netherlands	Netherlands EAI	S	S	S	S	S	U	S	S
NL612	Netherlands	Netherlands lineage4	S	S	S	S	S	S	R	S
NL031	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL581	Netherlands	Netherlands Delhi	S	S	S	S	S	S	U	S
NL357	Netherlands	Netherlands Beijing	S	S	S	S	S	S	U	S
NL602	Netherlands	Netherlands Haarlem	S	S	S	S	F	S	S	F
NL280	Netherlands	Netherlands BCG	S	S	S	R	S	S	S	R
NL206	Netherlands	Netherlands LAM	R	S	S	S	R	S	S	S
NL335	Netherlands	Netherlands Beijing	S	S	S	S	S	S	S	S
NL040	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL593	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL604	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL450	Netherlands	Netherlands S-type	S	S	S	S	S	S	S	S
NL226	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL191	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	U
NL558	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL561	Netherlands	Netherlands Haarlem	S	S	S	S	U	S	S	S
NL259	Netherlands	Netherlands M. bovis	S	S	S	R	S	S	S	R
NL276	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL267	Netherlands	Netherlands Tur	S	S	S	n/a	S	S	S	S
NL345	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL306	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL298	Netherlands	Netherlands Tur	S	S	S	n/a	S	S	S	F
NL141	Netherlands	Netherlands EAI	R	S	S	S	R	S	S	S
NL376	Netherlands	Netherlands Delhi	S	S	S	S	S	S	U	S
NL448	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL547	Netherlands	Netherlands M. orygis	S	S	S	n/a	S	S	U	S

NL446	Netherlands	Netherlands EAI	S	S	S	S	S	S	S	S
NL103	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL499	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL608	Netherlands	Netherlands LAM	S	S	S	S	S	S	U	S
NL028	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL469	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL495	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL291	Netherlands	Netherlands West Africar	S	S	S	S	S	S	U	S
NL418	Netherlands	Netherlands Beijing	n/a	R	S	S	R	R	U	S
NL110	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL489	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL119	Netherlands	Netherlands LAM	R	S	S	S	R	S	S	S
NL348	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL388	Netherlands	Netherlands Haarlem	S	S	S	n/a	S	S	S	S
NL426	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL394	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL523	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL497	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL465	Netherlands	Netherlands Delhi	S	S	S	S	S	S	U	S
NL046	Netherlands	Netherlands BCG	S	S	S	R	S	S	S	R
NL453	Netherlands	Netherlands lineage4	S	S	S	S	F	S	U	S
NL020	Netherlands	Netherlands Beijing	S	S	S	S	S	S	S	S
NL464	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL240	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL017	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL174	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL482	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL053	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL070	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
NL115	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	U	S
NL329	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL440	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL007	Netherlands	Netherlands Haarlem	S	S	S	S	S	S	S	S
NL000	Netherlands	Netherlands Delhi	S	S	S	S	S	S	U	S
NL124	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL236	Netherlands	Netherlands EAI	S	S	S	n/a	S	S	S	S
NL235	Netherlands	Netherlands Cameroon	S	S	S	S	S	S	U	S
NL596	Netherlands	Netherlands Cameroon	S	S	S	S	S	S	S	S
NL112	Netherlands	Netherlands M. bovis	S	S	S	R	U	S	U	R
NL507	Netherlands	Netherlands Haarlem	S	S	S	n/a	S	S	U	S
NL557	Netherlands	Netherlands Delhi	S	S	S	n/a	S	S	S	S
NL301	Netherlands	Netherlands Tur	S	S	S	n/a	S	S	S	S
NL488	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL011	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL311	Netherlands	Netherlands Beijing	S	S	S	S	S	U	S	S
NL320	Netherlands	Netherlands S-type	S	S	S	S	S	S	S	S
NL326	Netherlands	Netherlands lineage4	S	S	S	S	S	S	S	S
NL589	Netherlands	Netherlands Beijing	S	S	S	S	S	S	U	S
NL461	Netherlands	Netherlands LAM	S	S	S	S	S	S	S	S
NL364	Netherlands	Netherlands Beijing	S	S	S	S	S	S	S	S
NL272	Netherlands	Netherlands Delhi	S	S	S	S	S	S	S	S
CRYPAK227-17	Pakistan	Pakistan Delhi	R	S	S	S	R	S	S	S
CRYPAK239-17	Pakistan	Pakistan Delhi	R	R	S	R	R	R	R	R
CRYPAK319-17	Pakistan	Pakistan Delhi	R	R	S	R	R	R	R	U
CRYPAK422-16	Pakistan	Pakistan Delhi	R	R	R	R	R	R	R	U
CRYPAK47-17	Pakistan	Pakistan X-type	R	R	R	R	R	R	R	R
CRYPAK479-16	Pakistan	Pakistan Delhi	R	R	R	S	R	R	R	R
CRYPAK434-16	Pakistan	Pakistan EAI	R	R	R	S	R	R	R	S
CRYPAK212-17	Pakistan	Pakistan Delhi	R	R	R	R	R	R	R	R
CRYPAK175-17	Pakistan	Pakistan Delhi	R	R	S	S	R	R	S	S
CRYPAK204-17	Pakistan	Pakistan Delhi	S	S	S	S	S	S	S	S
CRYPAK86-17	Pakistan	Pakistan Cameroon	R	R	S	S	R	R	S	R
CRYPAK560-16	Pakistan	Pakistan Beijing	R	R	S	S	R	F	F	S
CRYPAK273-17	Pakistan	Pakistan Delhi	R	R	S	R	R	R	R	F
CRYPAK439-16	Pakistan	Pakistan Delhi	R	R	S	S	S	S	S	S
CRYPAK470-16	Pakistan	Pakistan Delhi	R	R	R	R	R	R	R	R
332-16	Pakistan	Pakistan Delhi	R	R	R	S	R	R	S	S
CRYPAK561-16	Pakistan	Pakistan Delhi	R	R	S	S	R	R	F	S
CRYPAK468-16	Pakistan	Pakistan Delhi	R	R	R	S	S	R	S	S
CRYPAK419-16	Pakistan	Pakistan Delhi	R	R	R	S	R	R	R	U
CRYPAK87-17	Pakistan	Pakistan Delhi	R	R	R	S	R	R	R	U
CRYPAK396-16	Pakistan	Pakistan EAI	R	R	R	R	R	R	S	R
CRYPAK128-17	Pakistan	Pakistan Delhi	S	R	S	S	S	R	S	S
CRYPAK152-17	Pakistan	Pakistan lineage4	R	R	R	R	R	R	R	R
CRYPAK420-16	Pakistan	Pakistan Delhi	R	R	R	R	R	R	R	R
CRYPAK282-17	Pakistan	Pakistan Delhi	R	S	S	S	R	S	S	S
CRYPAK295-17	Pakistan	Pakistan Delhi	R	R	S	S	R	R	U	S
CRYPAK512-16	Pakistan	Pakistan Ural	R	R	R	R	R	R	R	R
CRYPAK240-17	Pakistan	Pakistan Delhi	R	R	S	S	R	R	R	S
CRYPAK49-17	Pakistan	Pakistan Delhi	R	R	R	S	R	R	R	S
CRYPAK262-17	Pakistan	Pakistan Delhi	S	S	n/a	S	S	S	S	S
CRYPAK398-16	Pakistan	Pakistan Delhi	R	R	S	S	R	R	S	S
CRYPAK169-17	Pakistan	Pakistan Delhi	R	R	S	S	R	F	S	S
CRYPAK78-17	Pakistan	Pakistan Delhi	R	R	R	R	R	R	R	R
CRYPAK267-17	Pakistan	Pakistan Delhi	S	S	S	S	S	S	S	S
CRYPAK137-17	Pakistan	Pakistan Delhi	R	R	S	S	R	R	R	S
CRYPAK417-16	Pakistan	Pakistan Beijing	R	R	S	S	R	R	U	S
CRYPAK418-16	Pakistan	Pakistan Tur	R	R	R	R	R	R	R	U
CRYPAK548-16	Pakistan	Pakistan Delhi	R	R	R	S	R	R	F	F
CRYPAK198-17	Pakistan	Pakistan Delhi	R	R	R	S	F	R	U	S
CRYPAK558-16	Pakistan	Pakistan lineage4	R	R	R	R	R	R	R	R
CRYPAK112-17	Pakistan	Pakistan Delhi	R	R	R	R	R	R	R	R
CRYPAK209-17	Pakistan	Pakistan Delhi	R	R	S	S	U	R	U	S
CRYPAK80-17	Pakistan	Pakistan Beijing	R	R	R	R	R	R	R	R
CRYPAK121-17	Pakistan	Pakistan EAI	R	R	R	R	R	R	F	R
CRYPAK254-17	Pakistan	Pakistan Delhi	S	S	S	S	S	S	S	S
CRYPAK221-17	Pakistan	Pakistan Delhi	R	R	R	R	R	R	R	U
321-16	Pakistan	Pakistan Delhi	R	R	S	S	R	R	R	U
CRYPAK45-17	Pakistan	Pakistan Delhi	R	R	R	S	R	R	R	S
CRYPAK416-16	Pakistan	Pakistan Tur	R	R	R	S	R	R	R	S
CRYPAK322-17	Pakistan	Pakistan Delhi	R	R	R	R	R	R	R	R
CRYPAK480-16	Pakistan	Pakistan lineage4	R	R	R	S	R	R	R	S
CRYPAK433-16	Pakistan	Pakistan Beijing	R	R	R	S	R	R	R	U
CRYPAK299-17	Pakistan	Pakistan Delhi	S	S	S	S	S	S	S	S
CRYPAK555-16	Pakistan	Pakistan Delhi	R	R	S	S	R	R	R	S
CRYPAK117-17	Pakistan	Pakistan Beijing	R	R	R	S	R	R	R	S
CRYPAK378-16	Pakistan	Pakistan Delhi	R	R	R	S	R	R	R	R
CRYPAK44-17	Pakistan	Pakistan Delhi	R	R	S	S	R	R	R	S
CRYPAK465-16	Pakistan	Pakistan lineage4	R	R	R	S	R	R	R	R
CRYPAK278-17	Pakistan	Pakistan Delhi	S	S	S	S	S	S	S	S
CRYPAK494-16	Pakistan	Pakistan Delhi	R	R	R	S	R	R	R	S
CRYPAK244-17	Pakistan	Pakistan lineage4	R	R	R	R	R	R	R	R
CRYPAK189-17	Pakistan	Pakistan Delhi	S	S	S	n/a	S	S	S	S
CRYPAK216-17	Pakistan	Pakistan Delhi	R	R	S	R	R	R	U	R
CRYPAK95-17	Pakistan	Pakistan Delhi	R	R	R	S	R	R	R	S
CRYPAK200-17	Pakistan	Pakistan Delhi	R	R	R	n/a	R	R	R	R

CRYPAK466-16	Pakistan	Pakistan	Delhi	R	R	S	R	R	R	R	R
CRYPAK73-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	U	S
CRYPAK359-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK219-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK493-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK471-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK550-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK361-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK113-17	Pakistan	Pakistan	lineage4	R	R	R	S	R	R	F	S
CRYPAK71-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	S
CRYPAK506-16	Pakistan	Pakistan	Beijing	R	R	R	R	U	R	R	F
315-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK491-16	Pakistan	Pakistan	Delhi	R	R	R	R	U	R	R	F
CRYPAK141-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK328-17	Pakistan	Pakistan	Delhi	S	S	S	n/a	S	S	S	S
CRYPAK191-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK423-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	S
CRYPAK237-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	S	R
CRYPAK109-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK395-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	S	S
333-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK76-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK500-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK293-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK153-17	Pakistan	Pakistan	lineage4	S	S	S	S	U	S	S	S
CRYPAK171-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK104-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK393-16	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK211-17	Pakistan	Pakistan	Delhi	R	R	R	S	F	R	F	S
CRYPAK339-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	F	F	F
CRYPAK270-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK187-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	S
CRYPAK190-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK384-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK315-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	U	S	S
CRYPAK389-16	Pakistan	Pakistan	lineage4	R	R	S	R	R	R	R	R
CRYPAK210-17	Pakistan	Pakistan	Delhi	R	R	R	n/a	R	R	R	S
CRYPAK400-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	U
CRYPAK444-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	F	S
CRYPAK562-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK385-16	Pakistan	Pakistan	Tur	R	R	R	R	R	R	R	S
CRYPAK324-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK106-17	Pakistan	Pakistan	EAI	R	R	R	R	R	R	R	U
CRYPAK263-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK82-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	U	S
CRYPAK443-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK111-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	S
CRYPAK343-16	Pakistan	Pakistan	Delhi	R	R	S	S	S	R	S	S
CRYPAK120-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK436-16	Pakistan	Pakistan	Delhi	R	R	S	R	S	R	F	R
CRYPAK556-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK255-17	Pakistan	Pakistan	lineage4	S	S	S	S	S	S	S	S
CRYPAK214-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	U	S
CRYPAK247-17	Pakistan	Pakistan	Delhi	R	S	S	S	S	S	S	S
CRYPAK346-16	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK264-17	Pakistan	Pakistan	Delhi	R	R	R	S	U	R	R	S
CRYPAK261-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	F	S
CRYPAK207-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK552-16	Pakistan	Pakistan	EAI	R	R	R	R	R	R	R	R
CRYPAK430-16	Pakistan	Pakistan	EAI	R	R	S	S	F	R	S	S
CRYPAK447-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK450-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK499-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	U
CRYPAK498-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	R
CRYPAK511-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	S
CRYPAK52-17	Pakistan	Pakistan	Delhi	R	R	S	R	R	R	U	R
CRYPAK510-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK488-16	Pakistan	Pakistan	Tur	R	R	R	R	R	R	R	F
CRYPAK291-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	U
CRYPAK382-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	U
CRYPAK288-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK388-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	U	S
CRYPAK380-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	F
CRYPAK63-17	Pakistan	Pakistan	Ural	R	R	R	R	R	R	R	U
CRYPAK387-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK358-16	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK242-17	Pakistan	Pakistan	lineage4	S	R	S	S	S	R	S	S
CRYPAK284-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK343-17	Pakistan	Pakistan	Delhi	S	S	S	n/a	S	S	S	S
CRYPAK505-16	Pakistan	Pakistan	Beijing	R	R	R	S	R	R	R	R
CRYPAK454-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	U
CRYPAK481-16	Pakistan	Pakistan	lineage4	R	R	S	S	R	R	R	R
316-16	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK50-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK305-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK233-17	Pakistan	Pakistan	Delhi	R	R	S	R	F	R	U	R
CRYPAK301-17	Pakistan	Pakistan	EAI	S	S	S	S	S	S	U	S
CRYPAK541-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK483-16	Pakistan	Pakistan	lineage4	R	R	S	S	R	R	S	S
325-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK126-17	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK336-17	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK357-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK201-17	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK350-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK245-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	F
CRYPAK164-17	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	U	R
CRYPAK230-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK296-17	Pakistan	Pakistan	lineage4	R	R	R	S	R	R	R	S
331-16	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
320-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
330-16	Pakistan	Pakistan	lineage4	R	R	S	R	R	R	R	R
CRYPAK478-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	F	F	F
319-16	Pakistan	Pakistan	Delhi	R	R	S	R	F	F	F	F
CRYPAK314-17	Pakistan	Pakistan	Cameroon	R	R	S	S	R	R	R	S
327-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	S
CRYPAK127-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	S
CRYPAK60-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK99-17	Pakistan	Pakistan	Beijing	R	R	R	R	R	R	R	R
CRYPAK331-17	Pakistan	Pakistan	lineage4	R	R	R	S	R	R	R	S
CRYPAK330-17	Pakistan	Pakistan	Beijing	R	R	R	S	Beijing	R	U	S
CRYPAK265-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK206-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK236-17	Pakistan	Pakistan	EAI	R	R	R	S	R	R	R	S
CRYPAK102-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK563-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S

CRYPAK435-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	R
CRYPAK253-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
329-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	U
CRYPAK473-16	Pakistan	Pakistan	Beijing	R	R	R	R	R	R	R	R
CRYPAK258-17	Pakistan	Pakistan	Delhi	R	R	n/a	S	R	R	S	S
CRYPAK123-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	F
CRYPAK540-16	Pakistan	Pakistan	lineage4	S	R	S	S	S	R	S	S
CR391-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK174-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK220-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	U
CRYPAK354-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	U	S
CRYPAK477-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK177-17	Pakistan	Pakistan	lineage4	R	R	R	S	R	R	R	S
CRYPAK268-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK215-17	Pakistan	Pakistan	Delhi	S	S	S	n/a	S	S	S	S
CRYPAK36-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK413-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	S	R	S
CRYPAK487-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	F	S
CRYPAK115-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	F
CRYPAK116-17	Pakistan	Pakistan	Delhi	R	R	S	R	R	R	R	R
CRYPAK338-16	Pakistan	Pakistan	EAI	R	R	R	R	R	R	R	R
CRYPAK88-17	Pakistan	Pakistan	Delhi	R	R	R	S	U	R	R	S
CRYPAK179-17	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK257-17	Pakistan	Pakistan	EAI	R	R	R	R	R	R	R	R
CRYPAK379-16	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK415-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK72-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK180-17	Pakistan	Pakistan	Delhi	R	S	n/a	S	R	S	S	S
CRYPAK256-17	Pakistan	Pakistan	lineage4	S	S	S	S	S	S	S	S
CRYPAK460-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	F	F	F
CRYPAK428-16	Pakistan	Pakistan	Delhi	R	R	R	S	U	R	R	R
CRYPAK279-17	Pakistan	Pakistan	Delhi	R	S	S	S	U	S	S	S
CRYPAK546-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	U	R
CRYPAK553-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	F
CRYPAK252-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK224-17	Pakistan	Pakistan	lineage4	R	R	R	S	R	R	R	R
CRYPAK307-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK547-16	Pakistan	Pakistan	Delhi	R	R	S	S	U	R	F	S
CRYPAK475-16	Pakistan	Pakistan	lineage4	R	R	R	S	R	R	R	R
CRYPAK287-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK304-17	Pakistan	Pakistan	Cameroon	S	S	S	S	S	S	U	S
CRYPAK217-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK74-17	Pakistan	Pakistan	Delhi	R	R	S	R	R	R	R	R
CRYPAK98-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	S	S
CRYPAK235-17	Pakistan	Pakistan	Beijing	R	R	R	R	R	R	R	R
CRYPAK125-17	Pakistan	Pakistan	Cameroon	R	R	R	R	S	R	S	F
CRYPAK276-17	Pakistan	Pakistan	Beijing	R	R	R	S	R	R	R	S
CRYPAK118-17	Pakistan	Pakistan	Tur	R	R	R	R	R	R	R	U
CRYPAK545-16	Pakistan	Pakistan	Delhi	R	R	S	S	S	R	R	S
CRYPAK62-17	Pakistan	Pakistan	Delhi	R	R	S	R	R	R	R	F
CRYPAK424-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK496-16	Pakistan	Pakistan	Delhi	R	R	R	R	U	R	R	R
CRYPAK213-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	U	R
334-16	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK300-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK136-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK294-17	Pakistan	Pakistan	lineage4	R	R	S	S	R	R	R	S
CRYPAK508-16	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK381-16	Pakistan	Pakistan	Beijing	R	R	R	S	R	R	R	S
CRYPAK122-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK274-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	S
CRYPAK292-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK446-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK289-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK316-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK188-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK167-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK306-17	Pakistan	Pakistan	Delhi	R	R	S	S	S	R	S	S
CRYPAK97-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	S
CRYPAK432-16	Pakistan	Pakistan	Delhi	R	R	S	R	R	R	U	R
337-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK386-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	R	S
CRYPAK467-16	Pakistan	Pakistan	Haarlem	R	R	n/a	S	R	R	R	S
CRYPAK453-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK103-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK341-16	Pakistan	Pakistan	Delhi	R	R	S	R	R	R	S	R
CRYPAK441-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	U	S
CRYPAK53-17	Pakistan	Pakistan	Delhi	R	R	n/a	R	R	R	R	U
CRYPAK251-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK335-17	Pakistan	Pakistan	Delhi	S	S	S	S	R	S	S	S
CRYPAK248-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK507-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	F	S
CRYPAK140-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK275-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK259-17	Pakistan	Pakistan	lineage4	R	R	R	S	R	R	S	S
CRYPAK340-16	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	U	S
328-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	R
CRYPAK176-17	Pakistan	Pakistan	lineage4	R	R	R	R	R	R	R	R
CRYPAK269-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	U	S
CRYPAK427-16	Pakistan	Pakistan	Delhi	R	R	S	R	R	R	R	R
CRYPAK260-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	U
CRYPAK333-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK223-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	F	U	S
CRYPAK114-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK100-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
314-16	Pakistan	Pakistan	Delhi	R	R	R	R	U	R	F	R
CRYPAK90-17	Pakistan	Pakistan	Cameroon	R	R	S	S	R	R	R	S
324-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	S	R	S
CRYPAK495-16	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPAK459-16	Pakistan	Pakistan	Delhi	R	R	S	R	R	R	R	S
326-16	Pakistan	Pakistan	Beijing	R	R	R	R	R	R	R	R
CRYPAK205-17	Pakistan	Pakistan	Delhi	R	S	S	S	R	S	S	S
CRYPAK283-17	Pakistan	Pakistan	Delhi	S	S	S	S	S	S	S	S
CRYPAK312-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK68-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	F
CRYPAK84-17	Pakistan	Pakistan	Delhi	R	R	S	S	U	R	R	S
CRYPAK401-16	Pakistan	Pakistan	Haarlem	R	R	R	R	R	R	R	R
CRYPAK344-16	Pakistan	Pakistan	Beijing	R	R	R	S	R	R	R	S
CRYPAK119-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	U
CRYPAK285-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	U	F
CRYPAK476-16	Pakistan	Pakistan	Beijing	R	R	R	R	R	R	R	R
CRYPAK449-16	Pakistan	Pakistan	Delhi	R	R	n/a	R	R	R	F	F
CRYPAK101-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	U
CRYPAK271-17	Pakistan	Pakistan	Delhi	R	R	S	S	R	R	S	S
CRYPAK92-17	Pakistan	Pakistan	Delhi	R	R	R	R	R	R	R	R
CRYPAK238-17	Pakistan	Pakistan	Delhi	R	R	S	n/a	R	R	F	S

CRYPK163-17	Pakistan	Pakistan	Delhi	R	R	R	S	R	R	R	S
CRYPK341-17	Pakistan	Pakistan	Haarlem	R	R	R	n/a	R	R	R	S
03-R1504	Harvard	Peru	Beijing	R	R	R	R	R	R	R	R
01-R1387	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
01-R0185	Harvard	Peru	Haarlem	R	R	R	R	R	R	U	U
02-R1457	Harvard	Peru	LAM	R	R	R	R	R	R	U	R
02-R1681	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
01-R1466	Harvard	Peru	LAM	R	R	R	S	R	R	R	S
01-R0451	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
01-R0774	Harvard	Peru	Beijing	R	R	R	R	R	R	R	F
02-R1101	Harvard	Peru	Haarlem	S	S	S	S	S	F	S	F
01-R0909	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
01-R0420	Harvard	Peru	LAM	R	R	R	R	R	R	F	S
01-R1321	Harvard	Peru	Beijing	R	R	R	R	R	R	R	F
01-R1505	Harvard	Peru	Beijing	R	R	R	R	R	R	R	R
02-R1275	Harvard	Peru	lineage4	S	S	S	S	S	S	S	S
02-R0325	Harvard	Peru	LAM	R	R	R	S	R	R	R	R
01-R1339	Harvard	Peru	lineage4	R	R	S	R	R	R	R	R
03-R0797	Harvard	Peru	Haarlem	R	R	R	R	R	R	R	R
02-R1076	Harvard	Peru	Haarlem	S	S	S	S	S	S	S	S
01-R0878	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
02-R1140	Harvard	Peru	lineage4	S	S	S	S	S	S	S	S
02-R1645	Harvard	Peru	Haarlem	R	R	S	S	S	R	S	S
03-R0951	Harvard	Peru	Haarlem	R	R	R	R	U	R	R	R
02-R1683	Harvard	Peru	LAM	R	R	R	S	R	R	R	S
00-R1562	Harvard	Peru	Beijing	R	R	R	S	R	R	S	U
03-10017	Harvard	Peru	Beijing	S	S	S	S	S	S	S	S
03-R0795	Harvard	Peru	LAM	S	S	S	S	S	S	S	S
02-R1726	Harvard	Peru	Haarlem	R	R	R	S	R	R	U	U
02-R1915	Harvard	Peru	LAM	R	S	S	S	S	S	S	S
03-R0061	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
02-09688	Harvard	Peru	EAI	S	S	S	n/a	S	S	U	S
03-R1082	Harvard	Peru	LAM	R	R	R	R	R	R	F	R
00-R1547	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
99-R862	Harvard	Peru	LAM	R	R	R	S	R	R	R	R
02-R1485	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
00-R0308	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
01-R0265	Harvard	Peru	Haarlem	R	R	S	R	R	R	U	R
03-R0986	Harvard	Peru	LAM	R	R	S	R	R	R	S	R
01-R1386	Harvard	Peru	Haarlem	R	R	S	S	S	R	S	S
02-R1262	Harvard	Peru	LAM	S	S	S	n/a	S	S	S	S
01-R0272	Harvard	Peru	lineage4	R	S	R	R	R	R	R	R
03-R0293	Harvard	Peru	Beijing	R	R	R	S	R	R	R	S
98-R660	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
03-R0655	Harvard	Peru	Haarlem	R	R	R	S	R	R	U	S
03-R0419	Harvard	Peru	LAM	R	R	R	R	R	R	R	S
03-R0929	Harvard	Peru	LAM	S	S	S	S	S	S	S	S
98-R790	Harvard	Peru	Beijing	R	R	R	R	R	R	S	R
99-R1043	Harvard	Peru	lineage4	R	n/a	R	n/a	R	S	R	S
02-R0951	Harvard	Peru	lineage4	R	R	R	R	R	F	F	F
02-R0236	Harvard	Peru	Haarlem	R	R	S	R	R	R	R	U
03-R0749	Harvard	Peru	Haarlem	S	S	S	S	S	S	S	S
01-R0238	Harvard	Peru	LAM	R	R	S	S	R	R	S	S
01-R1468	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
03-R0194	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
03-R0070	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
03-R0177	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
02-R1945	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
02-R0984	Harvard	Peru	LAM	R	R	S	R	R	R	R	R
99-R545	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
01-R0880	Harvard	Peru	LAM	R	R	R	R	R	F	R	S
03-R0327	Harvard	Peru	Beijing	R	R	R	R	R	R	R	R
02-R0237	Harvard	Peru	lineage4	R	R	R	n/a	R	R	R	F
01-R1305	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
04-R0438	Harvard	Peru	LAM	R	R	R	R	R	R	U	R
02-R1191	Harvard	Peru	Haarlem	S	S	S	S	S	S	S	S
03-R0319	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
01-R0899	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
02-R1288	Harvard	Peru	Beijing	R	R	R	R	R	R	R	F
02-09397	Harvard	Peru	Haarlem	S	S	S	n/a	S	S	S	S
03-R1176	Harvard	Peru	Beijing	R	R	R	R	R	R	R	R
02-R0759	Harvard	Peru	Haarlem	R	R	R	R	R	R	R	R
03-R0768	Harvard	Peru	X-type	S	S	S	S	U	S	S	S
02-R1589	Harvard	Peru	lineage4	R	R	S	R	R	R	S	R
02-R1203	Harvard	Peru	lineage4	S	S	S	S	S	S	S	S
03-R0780	Harvard	Peru	LAM	S	S	S	S	S	S	S	S
02-R1630	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
01-R0153	Harvard	Peru	X-type	R	R	R	R	R	R	R	R
03-R1451	Harvard	Peru	Haarlem	R	R	R	S	R	R	R	U
99-10364	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
02-R0911	Harvard	Peru	LAM	R	R	R	R	R	R	U	R
03-R0411	Harvard	Peru	LAM	R	S	R	S	U	S	U	S
02-09856	Harvard	Peru	lineage4	S	S	S	n/a	S	S	S	S
03-R1465	Harvard	Peru	Haarlem	R	R	R	R	R	R	R	R
02-R1940	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
03-R0878	Harvard	Peru	Beijing	R	R	R	R	R	R	R	F
01-R0685	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
02-R1544	Harvard	Peru	LAM	R	S	S	R	R	R	S	R
02-R0754	Harvard	Peru	LAM	R	R	S	R	R	R	S	R
02-R0948	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
99-R576	Harvard	Peru	X-type	R	R	R	R	R	R	R	R
03-R0871	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
03-R0268	Harvard	Peru	Beijing	R	R	R	R	R	R	R	R
01-R0908	Harvard	Peru	lineage4	R	R	R	R	R	R	R	U
02-R0099	Harvard	Peru	lineage4	R	R	R	S	R	R	R	S
02-R0119	Harvard	Peru	LAM	R	R	S	S	R	R	R	R
01-R1599	Harvard	Peru	LAM	R	R	S	R	R	R	R	R
01-R1309	Harvard	Peru	lineage4	R	R	R	R	R	R	R	F
02-R1685	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
98-R454	Harvard	Peru	Haarlem	R	R	R	n/a	R	R	R	R
01-R0166	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
02-R0848	Harvard	Peru	S-type	R	R	S	R	R	R	U	R
03-R0783	Harvard	Peru	lineage4	S	S	S	S	S	S	S	S
03-R0920	Harvard	Peru	Haarlem	R	S	S	S	R	S	S	S
02-R1687	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
01-R1018	Harvard	Peru	LAM	R	R	R	R	R	R	R	F
00-R1566	Harvard	Peru	X-type	R	R	R	R	R	R	R	R
00-R1399	Harvard	Peru	lineage4	R	R	R	n/a	R	R	R	R
04-R0292	Harvard	Peru	Beijing	R	R	R	R	R	R	R	R
02-R1114	Harvard	Peru	LAM	S	S	S	S	U	S	S	S
02-10075	Harvard	Peru	Haarlem	S	S	S	n/a	S	S	S	S
02-R1244	Harvard	Peru	X-type	S	S	S	S	S	S	S	S
03-R0068	Harvard	Peru	LAM	R	R	S	S	R	R	U	S
99-R719	Harvard	Peru	LAM	R	R	R	S	R	R	S	S
01-R1499	Harvard	Peru	lineage4	R	R	R	n/a	R	R	R	R
00-R0223	Harvard	Peru	lineage4	S	S	S	n/a	S	S	S	S

02-R0272	Harvard	Peru	LAM	R	R	R	S	R	R	R	R
03-R0110	Harvard	Peru	Haarlem	R	R	R	R	R	R	U	U
02-R0971	Harvard	Peru	lineage4	R	R	R	S	U	R	R	R
00-R1405	Harvard	Peru	lineage4	R	R	R	R	R	R	R	U
02-09928	Harvard	Peru	LAM	S	S	S	n/a	S	S	U	S
02-R0286	Harvard	Peru	LAM	R	R	S	S	R	R	R	S
02-R0890	Harvard	Peru	X-type	R	S	S	S	R	R	R	R
01-R0239	Harvard	Peru	LAM	R	R	R	S	R	R	R	R
01-R0904	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
02-R1142	Harvard	Peru	LAM	S	S	S	S	S	S	S	S
02-R0407	Harvard	Peru	Haarlem	S	S	S	S	S	S	S	S
99-R1083	Harvard	Peru	LAM	R	R	R	S	R	R	R	R
03-R0979	Harvard	Peru	LAM	R	R	R	S	R	R	R	U
02-R0360	Harvard	Peru	Haarlem	R	R	R	S	R	R	R	S
01-R0244	Harvard	Peru	Haarlem	R	R	S	R	R	R	R	U
03-R0821	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
03-R0908	Harvard	Peru	LAM	S	S	S	S	S	S	S	S
02-R1871	Harvard	Peru	Haarlem	R	R	R	S	R	R	R	S
02-R1793	Harvard	Peru	Beijing	R	R	R	R	R	R	R	U
02-R1479	Harvard	Peru	X-type	R	R	R	R	R	R	R	R
03-R0221	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
02-R1709	Harvard	Peru	LAM	R	R	R	R	R	R	R	U
01-R0897	Harvard	Peru	lineage4	R	R	R	S	R	R	R	S
00-R0435	Harvard	Peru	lineage4	R	R	R	R	R	R	R	U
02-10028	Harvard	Peru	EAI	S	S	S	n/a	S	S	S	F
03-R0324	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
02-R1106	Harvard	Peru	LAM	S	S	S	S	S	S	S	S
03-R0736	Harvard	Peru	Haarlem	S	S	S	S	S	S	S	S
03-R0058	Harvard	Peru	Beijing	R	S	R	R	R	R	R	R
01-R0697	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
01-R0903	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
01-R0737	Harvard	Peru	LAM	R	R	R	R	R	R	S	R
02-R1789	Harvard	Peru	Beijing	R	R	R	R	R	R	R	F
00-R0312	Harvard	Peru	LAM	R	R	R	n/a	R	R	R	R
02-R0417	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
00-R0025	Harvard	Peru	Beijing	R	R	R	n/a	R	R	R	U
02-R1723	Harvard	Peru	Haarlem	R	R	R	R	R	R	R	R
02-R0241	Harvard	Peru	LAM	R	R	R	S	R	R	R	U
99-R890	Harvard	Peru	X-type	R	R	R	n/a	R	R	R	R
00-R1156	Harvard	Peru	X-type	R	R	R	R	R	R	R	R
02-R1742	Harvard	Peru	Beijing	R	R	R	R	R	R	R	S
02-R1952	Harvard	Peru	Beijing	R	R	R	R	R	R	R	F
03-R1338	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
03-R1337	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
01-R1559	Harvard	Peru	Beijing	R	R	R	S	R	R	R	S
02-R0191	Harvard	Peru	Haarlem	R	R	R	R	R	R	R	U
00-R0086	Harvard	Peru	Beijing	R	R	R	R	R	R	R	R
02-10098	Harvard	Peru	X-type	S	S	S	n/a	S	S	S	S
02-R1942	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
02-R1854	Harvard	Peru	LAM	S	S	S	S	S	S	U	S
02-R1728	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
02-R1137	Harvard	Peru	LAM	S	S	S	S	S	S	S	S
02-R1641	Harvard	Peru	Beijing	R	R	R	S	R	R	R	S
04-R0273	Harvard	Peru	lineage4	R	R	R	R	R	R	R	F
01-R0276	Harvard	Peru	LAM	R	R	S	R	R	R	R	F
02-R1260	Harvard	Peru	Delhi	S	S	S	n/a	S	S	S	S
00-R0453	Harvard	Peru	LAM	R	R	R	n/a	R	R	R	R
02-R1210	Harvard	Peru	Haarlem	S	S	S	S	S	S	S	S
02-R0793	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
99-R887	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
01-R0647	Harvard	Peru	Beijing	R	R	S	R	R	R	R	R
01-R1241	Harvard	Peru	Haarlem	R	R	R	S	R	R	U	U
02-R0861	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
02-R1267	Harvard	Peru	EAI	S	S	S	n/a	S	S	S	S
02-R1753	Harvard	Peru	Beijing	R	S	R	S	R	R	U	S
02-R0812	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
00-R0178	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
00-R1549	Harvard	Peru	lineage4	R	R	R	S	R	R	R	U
03-10150	Harvard	Peru	LAM	S	S	S	n/a	S	S	S	S
02-R1543	Harvard	Peru	S-type	R	R	R	S	R	R	R	S
01-R1341	Harvard	Peru	X-type	R	R	R	R	R	R	R	R
02-R0016	Harvard	Peru	LAM	R	R	R	R	R	R	R	F
99-R141	Harvard	Peru	lineage4	R	R	R	n/a	R	R	R	R
02-R1825	Harvard	Peru	Beijing	R	R	R	R	R	R	R	R
01-R1540	Harvard	Peru	Beijing	R	R	S	R	R	R	S	R
02-R0328	Harvard	Peru	Beijing	R	R	R	R	R	R	R	S
03-R1404	Harvard	Peru	Beijing	R	R	R	R	R	R	U	R
02-R1527	Harvard	Peru	lineage4	R	R	R	R	R	R	R	R
99-R855	Harvard	Peru	Beijing	R	R	R	R	R	R	R	F
03-R1373	Harvard	Peru	X-type	R	R	R	R	R	R	R	R
02-R1444	Harvard	Peru	LAM	R	R	S	R	R	R	R	R
01-R0902	Harvard	Peru	LAM	R	R	R	R	R	R	R	R
03-R1084	Harvard	Peru	Beijing	R	S	R	R	R	R	R	R
01-R0290	Harvard	Peru	LAM	R	R	R	R	R	R	R	U
03-10019	Harvard	Peru	Beijing	S	S	S	S	S	S	S	S
02-R1941	Harvard	Peru	Haarlem	R	R	R	R	R	R	R	R
14893_2_49	Peru via LSHTM, UK	Peru	Haarlem	S	R	n/a	n/a	S	R	S	S
14722_6_94	Peru via LSHTM, UK	Peru	Haarlem	R	R	n/a	n/a	R	R	R	R
14892_2_31	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14893_2_1	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14892_2_34	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	S	S
14892_2_41	Peru via LSHTM, UK	Peru	Haarlem	R	R	n/a	n/a	R	R	U	R
14892_2_57	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	S	S	S
14893_2_43	Peru via LSHTM, UK	Peru	Haarlem	R	R	n/a	n/a	R	R	R	R
14893_2_34	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	S
15277_3_50	Peru via LSHTM, UK	Peru	lineage4	S	R	n/a	n/a	S	R	R	S
14722_6_33	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	S
14892_2_33	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14893_2_61	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	S	S
14893_2_45	Peru via LSHTM, UK	Peru	LAM	S	R	n/a	n/a	R	R	S	R
14892_2_10	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	S	S	S
14722_6_26	Peru via LSHTM, UK	Peru	LAM	S	S	n/a	n/a	S	S	U	S
14893_2_20	Peru via LSHTM, UK	Peru	X-type	R	S	n/a	n/a	R	S	S	S
14893_2_47	Peru via LSHTM, UK	Peru	Haarlem	S	R	n/a	n/a	S	R	S	S
14892_2_5	Peru via LSHTM, UK	Peru	Beijing	R	R	n/a	n/a	R	R	S	S
14892_2_22	Peru via LSHTM, UK	Peru	X-type	R	S	n/a	n/a	R	S	S	S
14893_2_9	Peru via LSHTM, UK	Peru	lineage4	R	R	n/a	n/a	R	R	S	S
14892_2_30	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	S	S	S
14893_2_18	Peru via LSHTM, UK	Peru	LAM	S	R	n/a	n/a	F	F	S	F
14893_2_5	Peru via LSHTM, UK	Peru	EAI	S	S	n/a	n/a	S	S	S	S
14893_2_65	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14893_2_36	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	R
14892_2_9	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	S	S
14892_2_18	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	S	S	S
14892_2_36	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	U	S	S
14722_6_69	Peru via LSHTM, UK	Peru	LAM	S	S	n/a	n/a	S	S	S	S

14892_2_44	Peru via LSHTM, UK	Peru	X-type	S	S	n/a	n/a	S	S	S	S
14893_2_55	Peru via LSHTM, UK	Peru	Beijing	R	R	n/a	n/a	R	R	S	S
14893_2_63	Peru via LSHTM, UK	Peru	Haarlem	R	R	n/a	n/a	R	R	U	S
14893_2_42	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	S	S	S
14722_7_80	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14722_7_29	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	S	R	S
14893_2_14	Peru via LSHTM, UK	Peru	Haarlem	R	R	n/a	n/a	S	S	S	S
14893_2_8	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	S	R
14722_6_84	Peru via LSHTM, UK	Peru	lineage4	R	S	n/a	n/a	R	S	S	S
14893_2_10	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	U	R
14893_2_21	Peru via LSHTM, UK	Peru	lineage4	R	R	n/a	n/a	R	R	R	S
14722_6_13	Peru via LSHTM, UK	Peru	LAM	S	R	n/a	n/a	R	R	R	R
14893_2_50	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	R
15277_3_52	Peru via LSHTM, UK	Peru	lineage4	R	R	n/a	n/a	R	R	R	R
14893_2_23	Peru via LSHTM, UK	Peru	LAM	S	R	n/a	n/a	R	R	S	R
14722_6_21	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	S	U	S	S
14892_2_1	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	R
14722_7_77	Peru via LSHTM, UK	Peru	lineage4	R	R	n/a	n/a	R	R	R	R
14893_2_57	Peru via LSHTM, UK	Peru	Haarlem	S	S	n/a	n/a	S	S	S	S
14722_6_35	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14893_2_60	Peru via LSHTM, UK	Peru	Haarlem	S	S	n/a	n/a	S	S	S	S
14722_7_70	Peru via LSHTM, UK	Peru	lineage4	R	S	n/a	n/a	R	S	S	S
14892_2_60	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14722_7_90	Peru via LSHTM, UK	Peru	lineage4	R	R	n/a	n/a	R	R	R	S
14722_6_59	Peru via LSHTM, UK	Peru	lineage4	S	R	n/a	n/a	R	R	R	S
14722_6_48	Peru via LSHTM, UK	Peru	M. caprae	S	S	n/a	n/a	S	U	S	S
14892_2_59	Peru via LSHTM, UK	Peru	lineage4	S	R	n/a	n/a	R	R	R	S
14722_7_62	Peru via LSHTM, UK	Peru	Beijing	R	R	n/a	n/a	R	R	U	S
14722_6_49	Peru via LSHTM, UK	Peru	S-type	S	S	n/a	n/a	S	S	S	S
14893_2_62	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	S	S
14892_2_50	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	S
14722_6_10	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	S	U	S
14893_2_54	Peru via LSHTM, UK	Peru	Beijing	R	R	n/a	n/a	R	R	S	R
14722_7_74	Peru via LSHTM, UK	Peru	Haarlem	R	R	n/a	n/a	R	R	S	S
14892_2_42	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14892_2_23	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14892_2_58	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	U
14893_2_48	Peru via LSHTM, UK	Peru	LAM	S	R	n/a	n/a	R	R	R	S
14893_2_59	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	R
15277_3_57	Peru via LSHTM, UK	Peru	LAM	S	R	n/a	n/a	R	R	S	R
14892_2_7	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	S	S	R
14892_2_12	Peru via LSHTM, UK	Peru	Beijing	R	R	n/a	n/a	R	R	R	R
14722_6_19	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14893_2_4	Peru via LSHTM, UK	Peru	LAM	S	R	n/a	n/a	S	R	U	S
15277_3_53	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	R
14722_6_64	Peru via LSHTM, UK	Peru	lineage4	R	S	n/a	n/a	R	R	R	S
14722_6_18	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14892_2_61	Peru via LSHTM, UK	Peru	lineage4	R	S	n/a	n/a	F	S	R	S
14722_6_22	Peru via LSHTM, UK	Peru	M. caprae	S	S	n/a	n/a	U	U	S	S
14893_2_53	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14893_2_33	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	S	S	S
14722_7_88	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	S	S	S
14722_7_64	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14722_6_40	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	U
14722_6_86	Peru via LSHTM, UK	Peru	LAM	S	R	n/a	n/a	R	R	S	R
14722_7_61	Peru via LSHTM, UK	Peru	X-type	R	S	n/a	n/a	R	S	S	S
14893_2_12	Peru via LSHTM, UK	Peru	Haarlem	S	R	n/a	n/a	S	R	S	S
14892_2_43	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	R
14722_6_41	Peru via LSHTM, UK	Peru	Beijing	R	S	n/a	n/a	R	R	U	S
14893_2_58	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	R
14892_2_39	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	R
14893_2_6	Peru via LSHTM, UK	Peru	Haarlem	R	R	n/a	n/a	R	R	R	U
14722_6_27	Peru via LSHTM, UK	Peru	Beijing	S	S	n/a	n/a	S	S	S	S
14893_2_64	Peru via LSHTM, UK	Peru	Haarlem	R	R	n/a	n/a	S	U	S	S
14893_2_51	Peru via LSHTM, UK	Peru	X-type	R	S	n/a	n/a	R	S	S	S
14892_2_37	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14892_2_51	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	R
14893_2_56	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	U
14722_7_53	Peru via LSHTM, UK	Peru	lineage4	S	R	n/a	n/a	S	R	R	S
14892_2_2	Peru via LSHTM, UK	Peru	Beijing	R	S	n/a	n/a	R	S	S	S
14722_7_81	Peru via LSHTM, UK	Peru	Haarlem	S	R	n/a	n/a	S	R	S	S
14892_2_20	Peru via LSHTM, UK	Peru	lineage4	S	S	n/a	n/a	S	S	S	S
14722_6_66	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14893_2_52	Peru via LSHTM, UK	Peru	lineage4	S	R	n/a	n/a	R	R	S	S
14893_2_66	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	S	R
14722_6_38	Peru via LSHTM, UK	Peru	LAM	S	R	n/a	n/a	R	R	S	R
14893_2_29	Peru via LSHTM, UK	Peru	lineage4	R	R	n/a	n/a	R	R	S	S
14892_2_29	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	S
14893_2_41	Peru via LSHTM, UK	Peru	Haarlem	R	S	n/a	n/a	R	S	S	S
14722_6_36	Peru via LSHTM, UK	Peru	Beijing	R	S	n/a	n/a	R	R	S	S
14893_2_46	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	R	U
14722_6_71	Peru via LSHTM, UK	Peru	lineage4	S	S	n/a	n/a	S	S	S	S
14722_6_70	Peru via LSHTM, UK	Peru	Beijing	R	S	n/a	n/a	S	S	S	S
14893_2_24	Peru via LSHTM, UK	Peru	LAM	R	S	n/a	n/a	R	S	S	S
14722_6_54	Peru via LSHTM, UK	Peru	LAM	R	R	n/a	n/a	R	R	S	R
0528A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR133877	S	S	R	S	S	S	S
2414A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229935	R	S	S	S	S	S	S
0443H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067627	R	R	S	R	R	R	R
0293V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133839	R	R	R	R	R	R	U
1292F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR108472	S	S	S	S	S	S	S
0096F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067608	R	R	S	S	R	S	S
1825K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144562	R	R	S	S	R	R	U
0405R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133860	R	R	S	S	R	R	U
0259H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133827	R	R	R	R	R	R	U
2626F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR234694	S	S	S	S	S	S	S
0197Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR133818	S	S	S	S	S	S	S
0820S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133947	S	R	S	S	S	S	S
0401M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133859	S	S	S	S	S	S	S
0556F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133885	R	R	R	S	R	R	U
2180W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228039	R	R	R	R	R	R	F
2373F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229965	S	R	R	S	R	R	R
2565P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR234669	R	R	S	R	R	R	S
0754W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133924	R	S	S	S	U	U	S
0511G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067761	R	R	S	S	R	R	R
0589R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133888	R	R	R	S	R	S	R
0710Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117454	R	R	S	R	S	R	R
0943B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067643	R	R	R	S	R	R	R
2482Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR229944	S	S	S	U	S	S	S
1366L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137220	R	R	R	S	R	R	U
1456J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067700	R	R	R	n/a	U	S	S
0063V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR133800	R	R	S	S	R	R	R
2326E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR228021	S	S	S	R	S	S	R
2042W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR144624	R	R	R	S	R	R	S
1900R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR144592	S	S	S	S	S	S	S
1626T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067687	R	R	R	R	R	R	R
1466V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR067703	S	S	S	S	S	S	S

2597Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR234691	S	S	S	S	S	S	S	S
2344Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229971	R	R	R	R	R	R	R	R
0427Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234575	R	S	S	R	R	S	S	F
1084E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133989	S	S	S	S	S	U	S	S
0024C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR108463	S	S	S	S	S	S	S	S
0693E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234642	S	S	S	S	S	S	U	S
0539M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234600	R	R	R	R	R	R	R	R
1513W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137240	R	S	R	S	R	S	R	S
0309M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR067603	R	R	R	R	R	R	R	R
0773R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133930	R	R	S	S	R	R	R	U
2467H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229999	R	S	R	S	R	S	R	S
1176E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137195	S	S	S	S	S	S	U	S
0432W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133862	R	S	S	S	R	S	R	S
0416D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067745	R	S	S	S	R	S	R	S
2507B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR229938	S	S	S	R	S	S	S	S
0132V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133809	R	S	S	S	R	S	S	S
0995H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133979	S	S	S	S	S	S	S	S
0395F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133855	R	R	S	S	R	R	S	S
1673V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR108509	S	S	S	S	S	S	S	S
1605W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067717	R	R	R	S	R	R	R	F
1805N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144552	S	S	S	S	S	S	U	S
0640X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR067599	R	R	R	S	R	R	R	S
1921P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144600	R	R	R	S	R	R	R	U
0040V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234596	R	R	R	S	R	R	R	U
1054X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR133985	R	S	S	S	R	S	S	S
1559W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067715	R	R	R	S	R	U	F	F
1645P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108505	S	S	S	S	S	S	S	S
0660T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR234586	S	S	S	S	U	S	S	S
2294V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228043	R	R	S	R	R	R	R	R
0991D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR108482	R	R	S	S	R	R	R	R
1418S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR137228	R	S	S	S	R	S	S	S
0752T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR133922	R	R	S	S	R	R	R	S
1849L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR144569	S	S	S	S	S	S	S	S
2396F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR229990	S	R	R	S	S	R	S	S
0070C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108501	S	S	S	S	S	S	S	S
1949V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108453	R	R	R	R	R	R	R	R
1769Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144542	R	R	S	R	R	R	S	R
2585L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR234684	S	S	S	S	S	S	S	S
1831R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144564	R	S	S	S	R	S	S	S
0940Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067641	R	R	S	R	R	R	R	R
2559H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR234667	S	S	S	S	S	U	U	S
1024P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR108487	S	S	S	S	U	S	S	S
0228Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133820	S	S	S	S	S	S	U	S
0831E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067653	R	R	R	S	R	R	R	R
1067L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR108427	S	S	S	S	S	S	S	S
2227X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR228009	R	R	S	S	R	R	R	S
0545T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR234616	R	R	S	S	R	S	U	S
2339T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229931	R	R	R	R	R	R	R	R
1815Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144556	R	R	S	S	F	F	F	F
1473C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067709	R	R	R	R	R	R	R	R
0630L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067766	S	S	S	S	S	S	U	S
2071C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144631	R	R	R	S	R	R	R	S
0903H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133968	R	S	S	S	R	S	S	S
0839N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067659	R	R	S	S	R	R	R	S
0013Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR108459	S	S	S	S	S	S	S	S
1545F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117465	R	R	S	S	S	S	U	S
0398J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR067624	R	R	S	S	S	S	S	S
1086G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR108448	S	S	S	S	S	S	S	S
0133W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133810	S	S	S	S	S	S	S	S
0915W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067673	R	R	S	S	R	R	R	U
0269T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133830	S	S	S	S	S	S	S	S
0344A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR067612	R	S	S	R	U	R	R	R
0548X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067731	S	S	S	S	U	S	S	S
1524H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR108449	S	R	R	R	n/a	S	S	S
0457Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR067751	S	S	S	R	S	S	S	S
1617J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067685	S	R	S	S	S	R	S	S
2367Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR229925	R	S	S	S	R	S	S	S
0788H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133939	S	S	S	S	S	S	S	S
0292T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234590	R	R	R	S	R	R	R	U
1592G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR108432	S	S	S	S	S	S	S	S
2520Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234652	S	S	S	S	S	S	U	S
1353X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137216	R	S	S	R	R	S	R	R
2290Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228027	S	S	S	S	S	S	S	S
1392P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137223	R	R	R	S	R	R	R	U
2133V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158588	R	R	R	R	R	R	R	F
0889S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR133965	S	S	S	S	S	S	S	S
0177T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067580	S	S	S	S	S	S	S	S
0629K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117453	R	R	S	S	R	R	R	F
2438B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR229959	S	S	S	R	S	U	S	S
2084R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158572	S	S	R	S	U	S	S	S
1616H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067684	S	S	S	S	S	S	S	S
1595K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108435	R	R	S	R	R	R	R	R
2033L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144620	R	R	R	R	R	R	R	R
0659S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR234578	S	S	S	S	S	S	S	S
0051G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234620	R	S	R	S	R	S	S	S
1193Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR067679	R	R	S	S	R	R	R	S
2473P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229920	S	S	S	S	S	S	U	R
0899D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133966	R	R	S	S	R	R	R	F
2385T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229918	R	R	R	S	R	F	F	F
0296Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133840	S	S	S	S	S	S	S	S
0649G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234641	R	R	S	S	R	R	R	U
1561Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117467	S	S	S	S	S	S	S	S
1250K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137206	R	R	S	S	R	F	F	F
0847X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067666	S	S	S	S	S	R	S	S
1890F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144588	R	S	S	S	R	S	S	S
0951K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067674	R	R	R	S	R	R	R	U
2405Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR230006	R	R	R	S	R	F	S	S
2478V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR229928	S	S	S	R	S	S	S	S
0438C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067625	R	R	R	S	R	R	R	U
0757Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133926	S	S	S	S	S	S	S	S
2484B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229960	R	R	S	S	R	R	R	U
0159Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067719	R	S	R	S	S	S	U	S
0868V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133958	S	S	S	S	S	S	S	S
0720J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133913	R	S	S	S	R	S	U	S
0469L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234560	R	R	R	S	R	R	R	U
0547W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR067730	S	S	S	S	U	S	S	S
1917K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144597	R	R	S	S	R	R	R	U
1492Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR227982	R	R	R	S	R	R	R	S
0188F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067721	R	R	R	S				

0840P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067660	R	R	S	R	R	R	R	S
0018W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR108461	S	S	S	S	S	S	U	S
0833G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067654	R	R	R	n/a	R	S	R	U
1920N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144599	R	S	S	S	R	S	S	S
1472B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067708	S	S	S	S	S	S	S	S
1017G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108486	S	S	S	S	S	S	U	S
0286M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR117450	S	S	S	S	S	S	S	S
2286L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR228011	S	S	S	S	S	S	S	S
2111W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR158582	S	S	S	S	S	S	S	S
1717S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137268	S	S	S	S	S	S	S	S
1570H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137247	R	R	R	R	R	R	R	R
0200T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133819	S	S	S	S	U	S	S	S
0665Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234610	R	R	S	S	R	R	R	S
0277C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133833	S	S	S	S	S	S	S	S
0996J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133980	R	S	S	S	S	S	U	S
2594W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234690	S	S	S	S	S	S	S	S
0838M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR067658	S	S	S	S	S	S	S	S
1945Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR144603	S	S	S	S	S	S	S	S
2291R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR228035	S	S	S	S	S	S	S	S
1060D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108423	R	S	S	R	R	S	S	U
0799V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133944	R	R	S	S	R	R	R	U
1187R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067676	S	S	S	S	S	S	S	S
0944C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067644	R	R	R	R	R	R	R	R
1773D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144545	R	S	S	R	R	S	S	R
0384T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067740	S	S	S	S	S	S	S	S
0896A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234563	R	R	S	R	R	R	R	S
2006G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144607	R	R	R	R	R	R	R	R
1901S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144593	R	R	S	S	R	R	R	U
2589Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR234686	S	S	S	S	S	S	S	S
2199R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR227992	S	S	S	S	S	S	S	S
2501V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229993	R	R	R	R	R	R	R	U
0978P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108475	R	R	R	S	R	R	R	U
1042J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133983	S	S	S	S	S	S	S	S
1596L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108436	R	R	R	S	R	R	R	U
0887Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133963	R	S	S	S	R	S	S	S
0942A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133975	R	S	S	S	R	S	S	S
0786F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133937	R	R	S	S	R	S	U	S
0639W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133898	S	S	S	S	S	S	S	S
0601E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR234561	R	S	S	R	S	S	S	S
0448N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067748	R	R	S	S	R	R	R	S
2323B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR227997	R	S	S	S	R	S	S	S
0311P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133844	R	R	R	S	R	R	R	R
2072D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144632	R	R	R	S	R	R	R	U
1770A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144543	R	R	S	S	R	R	R	U
2211E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228048	R	S	S	S	R	S	S	S
0459A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR067591	R	R	R	S	S	U	S	S
1633B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067689	S	S	S	S	S	S	S	S
0352J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067694	R	R	S	S	R	R	R	S
0468K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234647	S	S	S	S	S	S	S	S
0498S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR133870	S	S	S	S	S	S	S	S
0617X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133897	S	S	S	S	S	S	S	S
0367A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067695	R	R	S	S	R	R	R	U
0916X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117458	S	S	S	S	S	S	S	S
0748P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133919	R	R	R	S	R	R	R	S
2381P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229997	R	R	S	S	R	R	R	S
0520R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133874	S	S	S	S	S	S	S	S
0346C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133849	R	R	S	R	R	R	R	S
1636E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067691	R	R	S	S	R	R	R	S
1506N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117462	R	R	S	S	R	R	R	S
0023B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR234580	S	S	S	S	S	S	S	S
0435Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133865	R	S	S	S	R	S	S	S
2273X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228042	R	R	S	R	R	R	R	F
1766W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR137284	R	R	R	R	R	R	R	U
1446Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137231	R	R	R	S	R	R	R	R
0878F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108441	S	S	S	S	S	S	S	S
0319Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR133846	S	S	S	S	S	S	S	S
0613S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234585	R	S	S	S	R	S	S	S
2095D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158580	R	R	S	R	R	R	R	S
1864C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144577	S	S	S	S	S	S	S	S
2010L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144610	S	S	S	S	S	S	S	S
1070P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133987	S	S	S	S	S	S	S	S
1660F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR108508	S	S	S	S	S	S	S	S
0044Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067618	R	R	S	R	R	R	R	R
2035N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144622	R	R	R	R	R	R	R	R
0593W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133892	R	R	R	n/a	R	R	R	U
2280E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR227987	R	R	S	S	R	R	R	S
0281G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133836	R	R	S	S	S	S	S	S
2318W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228068	S	S	S	S	S	S	S	S
2366Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR229917	S	S	S	S	S	S	S	S
0415C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067744	R	R	S	S	R	R	R	S
2382Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR230005	R	R	R	R	R	R	R	U
0910Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR067670	R	S	S	S	R	S	R	S
0544S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR067729	S	S	S	S	U	S	S	S
2216K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR227977	R	R	R	S	R	R	R	U
2127N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158585	R	R	R	S	R	R	R	S
1519C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137242	R	S	S	S	R	S	R	S
0897B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108458	R	R	S	S	R	R	R	U
2505Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229922	R	R	R	S	R	R	R	S
2139B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158591	S	S	S	R	S	S	S	S
2433W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR229943	S	S	S	S	S	S	S	S
1942M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR144602	S	S	S	S	S	F	S	S
0734Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117455	S	S	S	S	S	S	S	S
0195N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR234558	S	S	S	R	S	U	S	S
0575B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR234648	R	R	S	S	R	R	R	S
0364X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR133851	S	S	S	S	U	S	S	S
0322B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234598	R	R	R	S	R	R	R	U
2234E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228017	R	R	S	S	R	R	R	U
0604H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR234577	R	S	S	S	R	S	S	S
0233E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067586	R	S	R	R	R	S	R	R
2526X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR234654	R	R	R	S	R	R	R	S
0125M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133805	R	R	S	R	R	R	R	R
2097F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158581	R	R	R	S	R	R	R	S
0793N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR133942	R	R	R	R	R	R	R	R
1627V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067688	S	S	S	S	S	S	S	S
0217M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067583	R	R	R	S	R	R	R	U
2514J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229978	R	R	R	S	R	R	R	S
0888R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133964	S	S	S	S	S	S	S	S
0658R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234570	R	R	S	S	R	R	R	U
1082C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108447	R	S	S	S	R	S	R	

2243P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228049	R	R	R	R	R	R	R	F
1461P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234651	R	S	R	R	R	F	R	R
2388X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR229934	S	S	S	S	S	S	S	S
2639V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234698	R	R	S	S	R	R	R	U
0066Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108498	R	R	R	R	R	R	R	R
1919M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR144598	R	S	S	S	R	S	S	R
0355M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR133850	S	S	S	S	S	S	S	S
0450Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067750	R	R	R	R	R	R	R	R
0218N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067584	R	R	R	S	R	R	R	U
2078K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144634	R	R	R	S	R	R	R	S
2324C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR228005	S	S	S	S	S	S	S	S
1191W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR137201	R	S	S	S	R	S	S	S
0873A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108440	S	S	S	S	S	S	S	S
2335P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228061	R	R	R	S	R	R	R	U
1858W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144574	R	R	R	S	R	R	R	U
0399K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133857	S	S	S	S	S	S	S	S
1705E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137262	R	R	R	S	R	R	R	U
1397V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR137224	S	S	S	S	S	S	S	S
2625E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR234693	R	S	S	S	R	S	S	S
0668C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133901	R	R	R	S	R	S	R	S
2592T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234688	R	S	R	R	R	R	R	R
2049D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144625	R	R	S	S	S	F	S	S
2386V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229926	R	R	R	S	R	R	R	S
0678N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR234634	S	S	R	S	S	U	S	S
0818Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067651	R	R	R	S	R	R	R	U
1820E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR144559	R	S	S	S	R	S	S	S
1256R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137207	S	S	R	S	S	S	U	S
1164R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Delhi	ERR137193	S	S	S	S	S	S	S	S
1268E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137208	R	R	R	R	R	R	R	R
1767X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137285	S	S	S	S	S	S	S	S
0972H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133978	S	S	S	S	S	S	S	S
2371D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229949	R	R	R	R	R	R	R	S
0671F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR133903	R	R	R	R	R	R	U	R
2487E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229984	R	R	R	S	R	R	R	R
2312P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228028	R	R	R	R	R	R	R	R
2302D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR227980	R	S	R	S	R	S	R	S
0770N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108469	R	R	R	S	R	R	R	U
2090Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158577	S	S	S	S	S	S	S	S
0402N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067588	R	R	S	S	R	R	R	S
0904J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133969	R	S	S	S	R	S	S	U
0816N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067649	R	R	S	S	R	S	R	S
0835J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067656	R	R	S	S	R	R	R	U
2236G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	S-type	ERR228025	R	R	S	S	R	F	S	U
2219N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR227985	R	R	R	R	R	R	R	R
2052G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144628	R	R	R	S	R	R	R	U
2177S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR228023	S	S	S	S	S	S	S	S
1342K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137215	R	R	S	S	S	S	S	S
1361F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234603	S	S	S	S	S	S	S	S
1772C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR144544	S	S	S	S	S	S	U	S
0696H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133906	R	R	R	R	R	R	R	U
0183A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234645	R	R	R	S	R	S	R	S
1455H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR137233	R	S	R	S	R	S	R	S
0075H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117469	R	S	S	S	R	S	S	S
0458Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133866	R	R	S	S	R	R	R	U
0507C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067728	R	R	S	S	R	R	R	F
0725P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133915	R	R	S	R	R	R	R	U
0590S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133889	R	R	R	S	R	R	R	U
1507P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR227990	R	S	S	S	R	S	U	R
2440D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR229967	R	S	S	S	R	S	S	S
1409H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137225	R	R	S	R	R	R	R	F
1709J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137264	R	R	S	S	R	R	R	R
0650H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234649	R	R	S	R	R	R	R	R
2182Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR228047	S	S	S	S	S	S	S	S
0945D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067645	R	R	S	S	R	S	U	S
0465G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067631	R	R	S	S	R	R	R	S
0530C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133879	R	R	R	R	R	R	R	R
2008J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144609	R	S	S	S	U	S	S	S
1518B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137241	S	S	S	S	S	S	S	S
0351H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR067693	S	S	S	S	S	S	S	S
1186Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137198	R	S	S	S	R	S	S	S
2171L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR227999	S	S	S	S	S	S	S	S
0026E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108514	R	R	R	S	R	R	U	U
2342X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229955	R	R	R	S	R	R	R	S
0392C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234559	S	S	S	S	S	S	S	S
1359D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137218	R	R	R	S	R	R	R	S
2533E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234658	R	R	R	R	R	R	R	S
2315S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR228044	R	S	S	S	R	S	S	S
1551M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR137245	S	S	S	S	S	S	S	S
1012B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR108485	R	R	S	S	R	S	S	S
2494M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229945	S	S	S	S	S	S	S	S
0390A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067724	R	R	S	R	R	R	R	S
0834H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067655	R	R	S	S	S	S	S	U
2568S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234672	R	R	R	R	R	R	R	U
2358P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR229956	S	S	S	S	S	S	S	S
1465T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137235	S	S	S	S	S	S	S	S
1832S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR144565	R	S	R	S	R	S	S	S
1780L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR144547	S	S	S	S	U	S	S	S
0992E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR108483	S	S	S	S	U	S	S	S
2209C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228040	R	S	S	S	R	S	S	S
1137M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR108497	S	S	S	S	S	S	S	S
1782N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144548	R	R	S	S	R	R	R	U
1102Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR137191	S	S	S	S	S	S	S	S
0020Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108462	R	R	R	R	R	R	R	R
0782B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133934	S	S	S	S	S	S	S	S
0527Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR133876	S	S	S	S	S	S	S	S
0817P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067650	R	R	S	S	R	R	R	U
0268S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133829	S	S	S	S	S	S	S	S
2070B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144630	S	S	S	S	S	S	S	S
1391N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137222	R	R	S	S	R	R	R	U
2150N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158596	R	R	S	S	R	R	R	R
1739R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137275	R	R	R	R	R	R	R	R
1657C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137255	R	R	S	R	R	R	R	R
2283H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228003	R	R	S	S	R	R	R	S
2170K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR227991	S	S	S	S	S	S	S	S
0124L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133804	R	S	S	S	R	S	S	S
2317V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228060	S	S	S	S	S	S	U	S
1451D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137232	S	S	S	S	S	S	S	S
0366Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234638	S	S	S	S	S	S	S	S
0555E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067732	R	S	R	R	F	F	S	F

0345B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067587	R	R	S	S	R	R	R	U
2491J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229921	R	R	R	S	R	R	R	U
0016T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR108460	S	S	S	S	S	S	S	S
1542C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108452	S	S	S	S	S	F	S	S
1852P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144571	R	R	R	R	R	R	R	S
0667B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133900	R	R	R	R	R	R	R	S
0404Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067590	R	R	R	R	R	R	R	R
2408T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR229919	S	S	S	S	S	S	S	S
0552B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234624	R	S	S	S	R	S	S	S
0290R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133838	R	S	S	S	R	S	U	S
0385V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234646	R	R	S	S	R	R	R	S
0433X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133863	S	S	S	S	S	S	S	S
1011A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133981	R	R	R	S	U	R	R	S
2340V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229939	S	S	S	S	S	S	S	S
0512H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067762	R	R	S	S	R	R	R	U
0906L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133970	R	S	S	R	R	R	R	U
1680C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR137256	S	S	S	S	S	S	S	S
0042X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117449	S	S	S	S	S	S	U	S
0700M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133907	R	R	R	S	R	R	R	S
2248W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR228065	S	S	S	S	S	S	S	S
2591S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR234687	S	S	S	S	S	S	S	S
1871K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144582	S	S	S	S	S	S	U	S
1741T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137277	R	R	R	S	R	R	R	U
2499S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229977	S	S	S	S	S	S	S	S
0273Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133831	R	R	R	S	R	R	R	U
1870J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144581	R	R	S	R	R	R	U	S
0111X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234637	R	R	R	R	R	R	R	U
2247T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR228057	S	S	S	S	S	S	S	S
1650V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108506	S	S	S	R	S	S	U	R
0373G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR067697	R	R	S	R	R	R	R	R
0430T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067726	S	S	S	S	S	S	S	S
1126A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108493	R	R	R	S	R	R	R	U
0653L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133899	R	R	R	S	R	R	R	R
0283J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234574	R	R	S	S	R	R	R	U
0784D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133935	R	R	R	S	R	R	R	S
0960V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067635	R	R	S	S	R	R	R	U
1691P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR137258	S	S	S	S	S	S	S	S
1373T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR234627	R	R	S	S	R	R	R	S
1029V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108488	R	R	S	R	R	R	R	S
2511F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR229954	S	S	S	S	S	S	S	S
1346P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117470	R	R	R	S	R	R	R	U
1879T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR144585	S	S	S	S	S	S	S	S
2081N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158569	S	R	S	S	S	R	S	S
0137A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR133811	S	S	S	S	S	S	S	S
0403P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067589	S	S	S	S	S	R	S	S
0060R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234557	R	R	R	S	S	S	U	S
2357N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR229948	S	S	S	S	S	S	S	S
0541P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234608	R	R	S	S	R	R	R	R
0779Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108470	S	S	S	S	S	S	S	S
0397H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133856	R	S	S	S	R	R	S	S
1370Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234619	S	S	S	S	S	S	S	S
1522F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137243	R	R	R	R	R	R	R	R
2493L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR229937	S	S	S	S	S	S	U	S
1475E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067711	R	R	R	S	R	R	R	U
0466H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234639	R	R	R	R	R	R	R	F
1723Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117468	R	R	S	S	R	R	R	U
2367J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR229973	S	S	S	S	S	S	S	S
0069B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108500	R	R	S	S	R	R	R	S
1072R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR108429	R	S	S	S	R	S	S	S
1127B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108494	R	R	R	R	R	F	F	F
2379M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR229989	R	S	S	S	R	S	U	S
0890T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR108442	S	S	S	S	S	S	S	S
0157X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067718	R	R	R	S	R	R	R	U
2162B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228062	R	R	R	S	R	R	R	U
1552N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137246	R	R	R	R	R	R	R	R
1735M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137271	R	R	R	R	R	R	F	F
1586A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137248	R	R	S	R	R	R	R	R
0536J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR133883	S	S	S	S	S	S	S	S
1712M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137267	R	S	S	S	R	S	R	S
2360R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229964	R	S	S	S	R	R	S	S
1613E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067682	S	S	S	S	S	S	S	S
1594J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108434	S	S	S	S	S	S	S	S
0030J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR067616	S	S	S	S	S	S	S	S
0702P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133909	R	R	S	R	R	S	S	S
0236H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133823	R	R	R	S	R	S	S	S
0473Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067753	S	S	S	S	S	S	S	S
1854R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144573	R	R	R	S	R	R	R	R
0080N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234573	R	R	S	S	R	R	R	S
1903V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144594	R	S	S	S	R	S	S	S
0285L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067723	R	R	S	S	R	R	R	S
0126N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133806	R	R	S	S	R	R	R	U
0616W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133896	R	R	S	S	R	R	R	R
2187D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR228063	S	S	S	S	S	S	S	S
0278D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133834	R	R	S	S	R	R	S	S
0378M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067736	S	S	S	S	S	S	S	S
1269F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR137209	R	R	S	R	R	R	U	R
0902G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133967	S	S	S	S	U	S	S	S
0358Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158616	R	R	R	R	R	R	R	R
1731H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137269	R	R	S	S	R	R	R	U
1079Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR108446	S	S	S	S	U	S	S	S
0802Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133945	R	S	S	R	R	R	R	F
1073S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108443	R	R	R	R	R	R	R	S
2215J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228064	R	R	S	S	R	R	R	U
1833T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144566	R	R	R	S	R	R	S	R
2392B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR229958	S	S	S	S	S	S	S	S
2441E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229975	S	S	S	S	S	S	S	S
1457K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137234	R	R	R	S	R	R	R	R
0939X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067640	S	S	S	S	U	S	S	S
2195M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR227976	R	R	S	S	R	R	U	S
2050E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144626	S	S	S	S	S	S	S	S
2276A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR228058	R	S	S	S	R	S	U	S
1233R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137204	R	R	R	R	R	R	R	U
2347C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR229987	S	S	S	S	S	S	S	S
1742V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137278	S	S	S	S	S	R	S	S
2257E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228010	S	S	S	S	S	S	U	S
0406S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067742	R	R	S	S	R	R	R	U
0348E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067692	R	R	R	S	R	R	R	S
0175R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067578	R	R	S	R	R	R	R	U
0570W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133886	R	R	S	S				

05675	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067763	S	S	S	S	S	S	S	S
0338T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234622	R	R	R	R	R	R	R	U
1737P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137273	R	R	S	S	R	R	R	S
2370C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR229941	S	S	S	S	S	S	S	S
0611Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067595	S	S	S	S	S	S	S	S
1821F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144560	R	R	R	R	R	R	R	R
0138B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR133812	R	S	S	S	R	R	U	S
1182L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR137197	R	S	R	S	S	S	S	S
0846W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067665	R	R	R	R	R	R	R	U
0101L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR067601	S	S	S	S	S	S	S	S
2027E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR144618	R	S	S	S	F	S	S	S
2634P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR234696	R	S	S	R	R	S	S	S
1066K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108426	R	R	R	S	R	R	R	S
1955B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR144604	R	S	S	S	R	S	S	S
0842R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067661	R	S	S	S	R	S	R	U
1271H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137210	R	R	S	S	R	S	R	S
1532R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228006	R	R	S	R	R	R	R	R
2015R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144614	S	S	S	S	S	S	S	S
1189T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR137200	S	S	S	S	S	S	S	S
1324Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR108504	S	S	R	S	S	S	S	S
0647E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234633	R	R	R	S	R	R	R	U
1048Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133984	R	R	R	R	R	R	R	R
1469Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067705	R	R	S	R	R	R	S	F
0987Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108479	S	S	S	S	S	S	S	S
2163C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR227975	R	R	S	S	R	R	S	S
2345A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR229979	S	S	S	S	S	S	S	S
2631L	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Delhi	ERR234695	S	S	S	S	S	S	S	S
1738Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR137274	R	R	S	S	R	R	S	S
0596Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133893	S	S	S	S	S	S	S	S
0131T	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133808	S	S	S	S	S	S	S	S
2267Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR228026	R	S	S	S	R	S	S	S
2023A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144616	S	S	S	S	S	S	S	S
0666A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234618	R	R	R	S	R	R	R	U
0506B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133871	S	S	S	S	S	S	U	S
1188S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR137199	R	S	S	S	F	S	F	S
1509R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR117463	R	R	S	S	R	R	U	S
2527Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234655	R	S	S	S	R	S	S	S
2361S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR229972	S	S	S	S	S	S	S	S
2088W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR158575	S	S	S	S	S	S	S	S
1653Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137253	S	S	S	S	S	S	S	S
2039S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144623	R	R	S	S	R	R	R	R
1071Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108428	R	R	R	S	R	R	R	R
0518P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133873	R	R	S	R	R	R	R	R
1503K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR137238	S	S	S	S	S	S	S	S
0434Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133864	S	S	S	S	S	S	S	S
1765V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137283	R	R	S	S	R	R	R	U
0053J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067620	R	R	R	S	R	R	R	U
1892H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144590	R	R	S	S	R	R	R	U
2472N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR230007	R	R	R	S	R	S	R	S
0389Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133854	R	R	R	S	R	R	R	U
0977N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR108474	R	R	S	R	R	R	R	R
1414N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137227	R	S	S	S	R	S	S	S
2581G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234683	R	S	S	S	R	S	S	S
1604V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR067716	R	S	S	S	S	S	S	S
2336Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR228069	S	S	S	S	S	S	S	S
2174P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228007	S	S	S	S	S	S	S	S
0664Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234602	n/a	R	S	S	R	R	R	U
1336D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR137214	S	S	S	S	S	S	U	S
0495P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234576	R	R	R	S	R	R	R	U
2348D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229995	R	R	S	S	R	R	U	S
1802K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144551	R	R	R	S	R	R	R	U
0190H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067722	R	R	R	S	R	R	R	U
2327F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228029	R	R	S	S	R	R	R	U
2365X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR230004	S	S	S	S	S	U	S	S
0475S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067754	R	R	S	S	R	R	R	U
0756Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133925	S	S	S	S	S	S	S	S
0048D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133799	R	S	S	S	R	S	R	S
1558V	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067714	R	R	R	R	R	R	R	R
1530P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108450	R	R	R	R	S	R	R	R
1237W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137205	R	S	R	S	S	S	S	S
0305H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR133841	R	S	S	S	F	S	S	S
2266P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR228018	S	S	S	S	S	S	U	S
0029H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067615	R	R	S	R	R	R	R	R
1422X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137229	R	R	R	R	R	R	R	R
2034M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR144621	S	S	S	R	S	S	S	S
2586M	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR234685	S	S	S	S	S	S	S	S
1867F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR144578	S	S	S	S	S	S	S	S
2549Y	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234666	R	R	S	S	R	F	R	F
0460B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067630	R	R	R	S	R	R	F	R
0441F	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234607	R	R	S	R	R	R	U	S
0182Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067582	R	S	R	S	R	S	R	S
1690N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137257	R	R	S	S	R	R	R	S
0107S	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133802	S	S	S	S	S	S	S	S
0701N	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133908	R	R	R	R	R	R	R	R
0875C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR133961	R	S	S	S	R	S	S	S
0765H	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR108468	S	S	S	S	S	S	S	S
2466G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR229991	S	S	S	S	S	S	S	S
1824J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144561	R	R	S	S	R	R	R	U
0087W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234597	R	R	S	S	R	R	R	S
1679B	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR108511	R	R	S	S	R	R	R	S
2083Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR158571	S	S	S	S	S	S	S	S
2601D	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234692	R	R	S	S	R	R	R	S
0484C	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133868	R	R	S	S	R	R	R	U
1601R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR108437	S	S	S	S	S	S	S	S
0113Z	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR067602	R	S	S	R	S	S	S	S
0620A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR067734	S	S	S	S	S	S	S	S
1816A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR144557	S	S	S	S	S	S	S	S
2349E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Haarlem	ERR230003	R	R	S	S	R	R	R	S
1868G	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR144579	R	R	R	S	R	R	R	S
2372E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR229957	R	S	S	S	R	S	S	S
0749Q	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	LAM	ERR133920	S	S	S	S	S	S	S	S
1162P	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR137192	R	R	R	R	R	R	R	S
1774E	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	lineage4	ERR144546	S	R	S	S	S	S	S	S
0836K	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Ural	ERR067657	R	R	S	S	R	R	S	S
1471A	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067707	R	R	R	S	R	R	F	S
2567R	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234671	R	R	S	R	R	R	R	R
0823W	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR133950	S	S	S	S	S	S	S	S
2537J	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR234662	R	S	R	S	R	S	R	S
0571X	Casali et. al. Nat Genet. 2014 Mar;46(3):279-86	Russia	Beijing	ERR067765	R	R	S	S	R	R		

DG00537228_S9	South Africa	South Africa	lineage4	S	S	S	S	S	S	S	S	S
BF01332263_S25	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
BN00041405_S21	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
BT00031500_S10	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
CE01938363_S31	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
TRL0116168_S18	South Africa	South Africa	Beijing	n/a	R	R	n/a	R	R	R	R	R
BF01338219_S2	South Africa	South Africa	LAM	S	S	S	S	U	S	S	S	S
BR00093395_S17	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
EI00666603_S8	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
BF01092541_S25	South Africa	South Africa	S-type	R	R	R	S	R	R	R	U	U
CD00934516_S20	South Africa	South Africa	Beijing	S	S	S	S	S	U	S	S	S
EI00603951_S24	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
DG00676352_S17	South Africa	South Africa	lineage4	S	R	R	S	S	R	S	S	S
TRL0044786_S19	South Africa	South Africa	Haarlem	R	R	S	R	R	R	S	R	R
JG00304736_S2	South Africa	South Africa	S-type	R	R	R	R	R	R	R	R	R
TRL0115004_S6	South Africa	South Africa	X-type	n/a	R	S	n/a	S	R	S	F	F
TRL0113493_S10	South Africa	South Africa	EAI	R	R	R	R	R	R	R	R	R
TRL0116865_S11	South Africa	South Africa	Beijing	n/a	R	R	n/a	R	R	R	R	R
EI00661011_S12	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
TRL0091844_S5	South Africa	South Africa	EAI	R	R	R	R	R	R	R	R	R
BT00031455_S8	South Africa	South Africa	Delhi	S	S	S	S	S	S	S	S	S
DG00497195_S6	South Africa	South Africa	Delhi	S	S	S	S	F	S	S	S	S
DH00686932_S3	South Africa	South Africa	Beijing	R	R	S	S	F	F	F	F	F
DG00664475_S13	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
CG01293502_S1	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
RD00095112_S10	South Africa	South Africa	LAM	R	R	S	S	U	S	S	S	S
EI00608897_S32	South Africa	South Africa	Haarlem	S	S	S	S	S	S	S	S	S
BQ00025411_S6	South Africa	South Africa	S-type	S	S	S	S	S	S	S	S	S
DG00664485_S7	South Africa	South Africa	Delhi	R	S	S	R	R	S	S	U	U
FD00222433_S28	South Africa	South Africa	X-type	R	R	R	S	R	R	R	U	U
TRL0116219_S20	South Africa	South Africa	Beijing	n/a	R	R	n/a	R	R	R	S	S
DH00695092_S11	South Africa	South Africa	Haarlem	R	R	R	R	R	R	R	R	R
BR00088314_S16	South Africa	South Africa	S-type	R	R	R	R	R	R	R	R	R
PI00148593_S32	South Africa	South Africa	LAM	S	R	S	S	S	R	S	S	S
TRL0041018_S17	South Africa	South Africa	LAM	S	R	S	S	S	S	S	S	S
CD00809239_S32	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
BF01127258_S30	South Africa	South Africa	S-type	S	S	S	S	S	S	S	S	S
CE01929749_S11	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
BR00096737_S28	South Africa	South Africa	Beijing	S	S	S	n/a	S	S	S	S	S
BD00574429_S3	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
BF01457882_S22	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
BF01491838_S3	South Africa	South Africa	Haarlem	S	S	S	S	S	S	S	S	S
BN00040337_S32	South Africa	South Africa	Haarlem	S	S	S	S	S	S	S	S	S
DH00668828_S20	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
QF00450839_S14	South Africa	South Africa	X-type	S	R	S	S	U	R	S	S	S
CG01570427_S22	South Africa	South Africa	Haarlem	S	S	S	S	S	S	S	S	S
BF01391370_S28	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
GH00373068_S23	South Africa	South Africa	lineage4	S	S	S	S	S	S	S	S	S
BF01330892_S26	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
BF01227089_S16	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
TRL0038616_S12	South Africa	South Africa	Beijing	R	R	S	S	R	R	S	S	S
TRL0113427_S13	South Africa	South Africa	Haarlem	R	R	S	R	R	R	S	R	R
BF01353408_S31	South Africa	South Africa	Haarlem	S	S	S	S	S	S	S	S	S
TRL0114845_S3	South Africa	South Africa	LAM	n/a	R	R	n/a	R	R	R	F	F
BF01491999_S23	South Africa	South Africa	S-type	S	S	S	S	S	S	S	S	S
BF01498045_S22	South Africa	South Africa	LAM	S	S	S	S	U	S	S	S	S
DG00646980_S4	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
CD00958113_S26	South Africa	South Africa	X-type	S	S	S	S	S	S	S	S	S
CE01825547_S19	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
BF01355993_S32	South Africa	South Africa	S-type	R	S	S	S	S	S	S	S	S
CD00862479_S16	South Africa	South Africa	LAM	R	R	R	R	R	R	R	R	R
TRL0073196_S25	South Africa	South Africa	X-type	R	R	S	R	R	R	R	R	R
BQ00030105_S31	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
DH00741625_S10	South Africa	South Africa	Beijing	S	S	S	n/a	S	S	S	S	S
BT00028734_S4	South Africa	South Africa	Beijing	S	S	S	S	F	S	S	S	S
CG01611734_S28	South Africa	South Africa	X-type	S	S	S	S	S	S	U	S	S
ED00927883_S7	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
BT00033633_S21	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
TRL0022765_S16	South Africa	South Africa	Beijing	R	R	S	R	R	R	R	R	R
CE01707414_S3	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
DH00628091_S22	South Africa	South Africa	Haarlem	S	S	S	S	S	S	S	S	S
TRL0088085_S26	South Africa	South Africa	Beijing	R	R	R	S	R	F	R	R	R
BK00081681_S19	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
GH00383070_S2	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
ED00927899_S1	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
BF01491881_S14	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
BT00031324_S6	South Africa	South Africa	Beijing	S	S	S	S	F	S	S	F	F
TRL0113347_S12	South Africa	South Africa	S-type	R	R	R	R	R	R	R	R	R
PO00232748_S14	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
DG00497214_S7	South Africa	South Africa	X-type	S	S	S	S	S	S	S	S	S
BH00935270_S22	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
CG01283125_S32	South Africa	South Africa	EAI	S	S	S	S	S	U	S	S	S
BT00030782_S26	South Africa	South Africa	X-type	S	S	S	S	S	U	S	S	S
DG00674781_S19	South Africa	South Africa	LAM	S	S	S	S	U	S	S	S	S
DH00563988_S26	South Africa	South Africa	lineage4	S	S	S	S	S	S	S	S	S
BF01462180_S24	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
TRL0115510_S14	South Africa	South Africa	LAM	n/a	R	R	n/a	R	R	R	R	R
CH00382796_S10	South Africa	South Africa	X-type	S	S	S	S	S	S	S	S	S
BF01165217_S2	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
TRL0115399_S7	South Africa	South Africa	Beijing	n/a	R	R	n/a	R	R	R	R	R
JG00421329_S17	South Africa	South Africa	lineage4	S	R	S	S	S	F	S	S	S
BK00088622_S21	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
TRL0115885_S21	South Africa	South Africa	Beijing	n/a	R	S	n/a	R	R	S	S	S
BK00092074_S31	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
BK00092214_S19	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
BF01182050_S12	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
OI00115044_S8	South Africa	South Africa	lineage4	S	R	S	S	S	R	S	S	S
BD00535343_S6	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
TRL0115627_S17	South Africa	South Africa	Beijing	n/a	R	R	n/a	R	R	R	R	R
JG00407001_S7	South Africa	South Africa	S-type	S	S	S	S	S	S	S	S	S
TRL0117027_S18	South Africa	South Africa	Beijing	n/a	R	S	n/a	S	F	S	S	S
BE01336541_S20	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
TRL0114849_S9	South Africa	South Africa	Haarlem	n/a	R	S	n/a	R	R	S	R	R
ED00865824_S23	South Africa	South Africa	Beijing	S	S	S	S	S	S	S	S	S
TRL0116938_S15	South Africa	South Africa	X-type	n/a	R	R	n/a	R	R	S	R	R
DG00574978_S20	South Africa	South Africa	lineage4	S	S	S	S	S	S	S	S	S
DH00748222_S23	South Africa	South Africa	S-type	S	S	S	S	S	S	S	S	S
EI00656774_S9	South Africa	South Africa	lineage4	S	S	S	S	S	S	S	S	S
BT00026108_S4	South Africa	South Africa	LAM	S	S	S	S	S	S	S	S	S
PM00232791_S2	South Africa	South Africa	EAI	R	R	R	R	R	R	R	R	R
GH00391555_S28	South Africa	South Africa	Haarlem	S	S	S	S	S	S	S	S	S
TRL0115207_S18	South Africa	South Africa	LAM	n/a	R	R	n/a	R	R	R	R	R
TRL0101901_S6	South Africa	South Africa	X-type	R	R	S	R	R	R	R	R	R
TRL0113512_S7	South Africa	South Africa	X-type	R	R	R	S	R	R	R	U	U
RB00104514_S10	South Africa	South Africa	lineage4	R	R	S	S	R	F	S	S	S
PI00170885_S5	South Africa	South Africa	EAI	R	R	R	S	R	R	R	R	R

CD00789586_S20	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
GH00382137_S24	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
CH00361136_S9	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
GH00353950_S29	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
BR00088636_S3	South Africa	South Africa Beijing	S	S	S	S	S	S	S	F
BF01375020_S28	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
BF01428659_S30	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
TRL0115096_S13	South Africa	South Africa X-type	n/a	R	R	n/a	R	R	R	U
DA00307287_S20	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
CG01490105_S17	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
DA00304536_S14	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BE01478470_S22	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
DH00649810_S10	South Africa	South Africa Beijing	S	S	S	S	S	S	S	F
BT00026180_S25	South Africa	South Africa X-type	S	S	S	S	S	S	S	S
TRL0114774_S16	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
BK00092078_S32	South Africa	South Africa S-type	R	n/a	S	n/a	R	S	R	S
TRL0115669_S18	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
FD00247663_S28	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
BQ00027337_S11	South Africa	South Africa S-type	R	S	S	n/a	R	S	U	S
DH00618155_S28	South Africa	South Africa Haarlem	S	S	S	S	S	S	S	S
TRL0114962_S14	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
BT00031791_S14	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
CG01593846_S4	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
DG00561814_S22	South Africa	South Africa LAM	R	S	S	S	R	S	S	S
DH00741562_S9	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
BF01421069_S15	South Africa	South Africa LAM	S	S	S	S	U	S	S	S
CE01772649_S13	South Africa	South Africa Beijing	R	S	S	S	S	S	S	S
BT00028618_S7	South Africa	South Africa Delhi	S	S	S	S	S	S	S	S
BN00034640_S29	South Africa	South Africa Haarlem	S	S	S	S	S	S	S	S
BD00703460_S15	South Africa	South Africa Beijing	S	S	S	S	S	F	S	S
BQ00029771_S27	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
BF01330971_S12	South Africa	South Africa X-type	S	S	S	S	S	S	U	S
PL00097805_S26	South Africa	South Africa LAM	R	R	S	S	R	R	S	S
EI00623322_S7	South Africa	South Africa lineage4	R	S	S	S	U	S	S	S
CH00387331_S11	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BK00081000_S18	South Africa	South Africa Beijing	S	S	S	S	S	F	S	S
BD00678576_S22	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
PO00209791_S11	South Africa	South Africa Haarlem	S	R	S	S	S	R	S	S
TRL0060765_S13	South Africa	South Africa S-type	S	R	S	S	S	R	S	S
DH00634083_S30	South Africa	South Africa Beijing	R	S	S	S	R	S	S	S
PS00217691_S10	South Africa	South Africa LAM	R	R	S	S	R	R	S	S
TRL0115383_S15	South Africa	South Africa Beijing	n/a	R	S	n/a	F	R	U	S
BT00029097_S19	South Africa	South Africa Haarlem	S	S	S	S	S	S	S	S
DH00680833_S20	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BF01202447_S12	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
TRL0114616_S24	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
GH00363341_S30	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
CH00341127_S8	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0114833_S12	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
QE00098167_S8	South Africa	South Africa X-type	R	R	S	S	R	R	U	S
CH00420650_S30	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
JG00406968_S6	South Africa	South Africa X-type	S	S	S	S	S	S	S	S
BN00037979_S5	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
TRL0115868_S7	South Africa	South Africa X-type	n/a	S	R	n/a	R	R	R	U
BH00946140_S18	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
TRL0103669_S13	South Africa	South Africa Beijing	R	R	S	S	R	R	S	S
BK00079668_S19	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
BF01355975_S30	South Africa	South Africa X-type	S	S	S	S	S	S	S	S
BQ00030933_S4	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0116109_S14	South Africa	South Africa EAI	n/a	S	S	n/a	S	S	S	S
BH00794082_S26	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
BT00033627_S20	South Africa	South Africa lineage4	S	S	S	S	F	S	S	S
BR00096736_S27	South Africa	South Africa X-type	R	R	S	S	R	R	S	S
TRL0065056_S25	South Africa	South Africa LAM	S	R	S	S	S	S	S	S
EI00666607_S29	South Africa	South Africa Delhi	S	S	S	S	F	S	S	F
BQ00027771_S12	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
DA00306193_S14	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BE01379864_S15	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BF01274561_S17	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BD00629308_S32	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
ED00909054_S12	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0066006_S26	South Africa	South Africa X-type	S	R	S	S	S	S	S	S
DH00605289_S27	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
BF01355978_S31	South Africa	South Africa Haarlem	S	S	S	S	S	S	S	S
DH00680829_S13	South Africa	South Africa LAM	R	S	S	S	S	S	S	S
BN00045767_S7	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
GH00373073_S9	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
BF0115378_S5	South Africa	South Africa Haarlem	S	S	S	S	S	S	S	S
BT00029901_S26	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
TRL0115581_S15	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
DH00625221_S26	South Africa	South Africa S-type	S	S	S	S	S	S	U	S
JG00432562_S9	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
CD00970213_S4	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
DG00618197_S25	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
TRL0112877_S20	South Africa	South Africa LAM	R	R	S	R	R	R	S	R
GH00389342_S1	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
CG01554911_S5	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
BK00088728_S25	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
GH00350830_S17	South Africa	South Africa LAM	S	R	S	S	S	R	S	S
BF01483411_S2	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
WG00050823_S8	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
TRL0114792_S4	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
TRL0116715_S9	South Africa	South Africa Beijing	S	R	S	n/a	S	R	S	S
BH00824877_S8	South Africa	South Africa X-type	S	S	S	S	S	S	S	S
EF00280850_S29	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
EI00660938_S25	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
TRL0113671_S18	South Africa	South Africa LAM	S	R	S	S	S	R	S	S
CG01279230_S31	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
PK00599668_S16	South Africa	South Africa LAM	R	R	R	S	R	R	S	S
TRL0116115_S15	South Africa	South Africa LAM	n/a	S	S	n/a	S	S	S	S
BK00093448_S32	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0114658_S14	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
BF01310203_S13	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
BF01318054_S23	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
BF01196907_S14	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0115030_S10	South Africa	South Africa LAM	n/a	R	R	n/a	R	R	R	R
BE01207626_S14	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
TRL0115633_S3	South Africa	South Africa lineage4	n/a	R	R	n/a	R	R	R	U
BF01216702_S16	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
GH00389343_S18	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
DG00530312_S20	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
BD00490075_S5	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
TRL0116726_S16	South Africa	South Africa lineage4	R	R	S	n/a	R	F	S	S
DH00634109_S16	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0113569_S45	South Africa	South Africa Beijing	R	R	R	R	R	R	R	R
TRL0113098_S23	South Africa	South Africa S-type	R	R	R	S	R	R	R	S

BD00703455_S16	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
PE00190349_S18	South Africa	South Africa LAM	R	R	R	S	R	R	R	R
TRL0056535_S30	South Africa	South Africa Haarlem	R	R	S	S	R	R	U	S
TRL0112827_S19	South Africa	South Africa LAM	R	R	S	S	R	R	S	S
BE01487154_S24	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
BD00514520_S1	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BE01100694_S7	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
BE01141152_S9	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BF01492006_S20	South Africa	South Africa Beijing	S	S	S	n/a	S	S	S	S
BE01371373_S21	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
DG00611914_S7	South Africa	South Africa Delhi	S	S	R	S	S	S	S	S
BN00040586_S18	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BF01330879_S10	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
RF00127752_S27	South Africa	South Africa LAM	R	R	R	R	R	R	R	R
TRL0109157_S20	South Africa	South Africa Beijing	R	R	R	S	R	R	R	S
JG00224441_S4	South Africa	South Africa lineage4	R	R	R	S	R	R	R	U
DH00625230_S28	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0113005_S21	South Africa	South Africa S-type	R	R	S	R	R	R	R	R
BH00794084_S5	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
CE01538627_S9	South Africa	South Africa S-type	S	S	S	S	F	S	S	S
BE01314329_S19	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
EI00664567_S21	South Africa	South Africa LAM	R	R	S	S	R	R	S	S
BE01284388_S18	South Africa	South Africa lineage4	S	S	S	R	S	S	S	S
BK00079216_S7	South Africa	South Africa S-type	S	S	S	S	S	S	U	S
BF01178152_S11	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
BK00091915_S29	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
OC0001135_S5	South Africa	South Africa X-type	S	S	S	S	S	S	S	S
PK00685617_S23	South Africa	South Africa EAI	R	R	R	S	R	R	R	R
TRL0105138_S19	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
CG01388002_S15	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0115197_S15	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
CE01907630_S9	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
BR00093908_S21	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
EP00225306_S28	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
JD00110569_S17	South Africa	South Africa lineage4	S	R	S	S	R	R	S	S
PP00150885_S15	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0116187_S19	South Africa	South Africa lineage4	n/a	R	R	n/a	R	R	R	R
DG00593793_S15	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
ED00958949_S30	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
BR00072530_S18	South Africa	South Africa Beijing	S	S	S	R	S	S	S	S
BR00079236_S18	South Africa	South Africa EAI	S	S	S	S	S	S	S	S
BH00815106_S7	South Africa	South Africa Haarlem	R	S	S	S	S	S	S	S
BT00028780_S21	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
TRL0108514_S6	South Africa	South Africa lineage4	R	R	R	S	R	R	R	U
TRL0083468_S23	South Africa	South Africa LAM	S	S	S	S	S	S	S	F
CD00831317_S26	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
EF00273309_S5	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
PJ00162888_S8	South Africa	South Africa Haarlem	R	R	R	R	R	R	R	R
TRL0085353_S11	South Africa	South Africa S-type	S	R	S	S	S	S	S	S
ED00957471_S19	South Africa	South Africa LAM	R	S	S	S	S	S	U	S
DH00649794_S9	South Africa	South Africa X-type	S	S	S	S	F	S	U	S
BF01506396_S17	South Africa	South Africa EAI	S	S	S	S	S	S	S	S
BF01381848_S13	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
TRL0116880_S12	South Africa	South Africa LAM	n/a	R	R	n/a	R	R	R	R
BH00904043_S11	South Africa	South Africa EAI	S	S	S	S	S	S	U	S
TRL0114479_S10	South Africa	South Africa X-type	n/a	R	R	n/a	R	R	R	U
FD00212241_S26	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
BN00037636_S26	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
BR00093118_S28	South Africa	South Africa Haarlem	R	S	S	S	F	S	S	S
BF01386435_S10	South Africa	South Africa Haarlem	S	S	S	S	S	S	S	S
TRL0031160_S6	South Africa	South Africa lineage4	R	R	R	R	R	R	R	R
TRL0114667_S2	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
TRL0113095_S10	South Africa	South Africa S-type	R	R	R	R	R	R	R	R
BF01175387_S7	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
BF0152222_S19	South Africa	South Africa LAM	S	S	S	S	F	F	S	S
EN00013592_S25	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0108114_S4	South Africa	South Africa LAM	R	R	S	S	R	R	S	S
BR00092662_S34	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
PK00651442_S30	South Africa	South Africa Beijing	R	R	S	S	R	R	R	S
TRL0113469_S14	South Africa	South Africa LAM	R	R	S	S	R	R	R	S
TRL0114829_S6	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
BH00936808_S8	South Africa	South Africa Beijing	S	R	S	S	S	F	S	S
TRL0099205_S15	South Africa	South Africa LAM	S	R	S	S	S	R	S	S
BN00042248_S28	South Africa	South Africa LAM	R	R	S	R	R	R	R	R
BF01321448_S14	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
TRL0113487_S15	South Africa	South Africa LAM	R	R	S	S	R	R	R	S
BE01203293_S12	South Africa	South Africa Beijing	R	S	S	S	R	S	S	S
TRL0115283_S19	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
BF01311702_S23	South Africa	South Africa Haarlem	S	S	S	S	S	S	S	S
TRL0116593_S24	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	F
BE01457107_S22	South Africa	South Africa S-type	S	S	S	S	S	S	S	S
BD00561502_S18	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0114821_S5	South Africa	South Africa Haarlem	n/a	R	R	n/a	R	R	R	R
TRL0117008_S16	South Africa	South Africa Beijing	R	R	R	n/a	R	R	R	U
TRL0115846_S10	South Africa	South Africa Beijing	n/a	R	R	n/a	R	R	R	R
TRL0103300_S15	South Africa	South Africa X-type	R	R	S	S	R	R	R	S
BT00031965_S16	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BR00093905_S11	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0115018_S8	South Africa	South Africa Haarlem	n/a	R	R	n/a	R	R	R	R
TRL0090417_S19	South Africa	South Africa Beijing	R	R	R	S	R	R	R	S
TRL0023642_S1	South Africa	South Africa X-type	R	R	R	R	R	R	R	R
DG00518772_S15	South Africa	South Africa LAM	S	S	S	R	S	S	S	S
BF01236695_S29	South Africa	South Africa S-type	R	S	S	R	R	S	S	S
CD00792640_S24	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
TRL0086755_S25	South Africa	South Africa X-type	S	R	S	S	S	R	S	S
JA00225792_S1	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
TRL0112235_S18	South Africa	South Africa LAM	R	R	R	R	R	R	R	R
EB00188206_S4	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BF01330972_S27	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
TRL0113496_S6	South Africa	South Africa lineage4	S	R	S	S	S	R	S	S
BQ00026414_S10	South Africa	South Africa X-type	S	S	S	S	S	S	S	S
BF01445513_S21	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
CD00937617_S4	South Africa	South Africa LAM	R	S	S	S	R	S	S	S
BF01407000_S1	South Africa	South Africa Beijing	R	S	S	S	R	S	S	S
EI00662151_S13	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
CG01633852_S29	South Africa	South Africa Beijing	S	S	S	S	S	S	S	F
TRL0115368_S21	South Africa	South Africa S-type	n/a	S	S	n/a	S	S	F	S
DH00742250_S25	South Africa	South Africa X-type	S	S	S	S	S	S	S	S
BF01199882_S15	South Africa	South Africa lineage4	R	R	S	R	R	R	U	R
BF01481932_S24	South Africa	South Africa LAM	S	S	S	S	S	S	S	S
TRL0115039_S11	South Africa	South Africa Haarlem	n/a	R	R	n/a	R	R	R	R
BE01194858_S11	South Africa	South Africa Beijing	S	S	S	S	S	S	S	S
BK00077058_S14	South Africa	South Africa S-type	R	R	R	R	R	R	R	R
CE01786354_S3	South Africa	South Africa lineage4	S	S	S	S	S	S	S	S
TRL0107570_S5	South Africa	South Africa Beijing	R	R	R	n/a	R	R	R	S
DG00683532_S26	South Africa	South Africa Delhi	R	S	S	R	S	S	S	U

431-10	MSF	Swaziland	S-type	ERR552491	R	R	R	R	R	R	R	R
10453-09	MSF	Swaziland	LAM	ERR551231	R	R	S	S	U	F	F	S
7713-09	MSF	Swaziland	Beijing	ERR551650	R	R	R	S	R	R	R	S
6955-09	MSF	Swaziland	S-type	ERR552572 ERR	R	R	R	R	R	R	R	R
4347-09	MSF	Swaziland	EAI	ERR2199956	S	S	S	n/a	S	S	S	S
6243-09	MSF	Swaziland	X-type	ERR2200074	S	S	S	n/a	S	S	S	S
6085-09	MSF	Swaziland	lineage4	ERR2200067	S	S	S	n/a	S	S	S	S
5750-09	MSF	Swaziland	EAI	ERR2200048 ER	R	S	S	R	R	R	U	S
8585-09	MSF	Swaziland	LAM	ERR552789	R	R	S	R	R	R	R	R
5088-09	MSF	Swaziland	S-type	ERR2199994 ER	R	R	S	R	R	R	R	R
4727-09	MSF	Swaziland	X-type	ERR2199979	S	S	S	n/a	S	S	U	S
4298-09	MSF	Swaziland	S-type	ERR551194 ERR	R	n/a	R	R	R	R	R	R
1060-10	MSF	Swaziland	EAI	ERR2199774 ER	S	S	S	n/a	S	S	S	S
6059-09	MSF	Swaziland	X-type	ERR2200064 ER	R	R	R	R	R	R	R	U
118-10	MSF	Swaziland	LAM	ERR552221	R	S	S	S	R	S	S	S
1054-10	MSF	Swaziland	LAM	ERR498238	R	S	S	S	R	S	S	S
5093-09	MSF	Swaziland	EAI	ERR2199995	S	S	S	n/a	S	S	S	S
603-10	MSF	Swaziland	S-type	ERR552763	R	R	R	R	R	R	R	R
5582-09	MSF	Swaziland	Haarlem	ERR2200040	S	S	S	n/a	S	S	S	S
438-10	MSF	Swaziland	S-type	ERR553357	R	R	S	R	R	R	R	R
10301-09	MSF	Swaziland	lineage4	ERR2199758 ER	S	R	S	S	S	F	S	S
5111-09	MSF	Swaziland	Delhi	ERR2200002	S	S	S	n/a	S	S	S	S
5755-09	MSF	Swaziland	Haarlem	ERR552010	R	R	S	R	R	R	S	R
433-10	MSF	Swaziland	S-type	ERR552754	R	R	R	R	R	R	R	R
4723-09	MSF	Swaziland	S-type	ERR552083	R	n/a	R	R	R	R	R	R
7187-09	MSF	Swaziland	Beijing	ERR551979 ERR	S	S	S	n/a	S	S	S	S
4273-09	MSF	Swaziland	Haarlem	ERR2199936	S	S	S	n/a	S	S	S	S
5579-09	MSF	Swaziland	S-type	ERR552764 ERR	R	R	R	R	R	R	R	R
4344-09	MSF	Swaziland	LAM	ERR2199953 ER	S	S	S	n/a	S	S	U	S
10121-09	MSF	Swaziland	X-type	ERR2199750 ER	R	R	R	R	R	R	R	U
10702-09	MSF	Swaziland	X-type	ERR552074 ERR	R	R	R	n/a	R	R	R	U
7175-09	MSF	Swaziland	S-type	ERR552612	R	R	R	R	R	R	R	R
1057-10	MSF	Swaziland	LAM	ERR553350	R	R	R	S	R	R	U	S
4711-09	MSF	Swaziland	lineage4	ERR2199975	S	S	S	n/a	S	S	S	S
5126-09	MSF	Swaziland	LAM	ERR2200008	S	S	S	n/a	U	S	S	S
5099-09	MSF	Swaziland	Haarlem	ERR2199996	S	S	S	n/a	S	S	S	S
5106-09	MSF	Swaziland	EAI	ERR552115	R	R	R	R	R	R	R	R
10436-09	MSF	Swaziland	S-type	ERR2199766 ER	R	n/a	R	R	R	R	R	R
4285-09	MSF	Swaziland	X-type	ERR551941 ERR	S	S	S	n/a	S	S	S	S
5121-09	MSF	Swaziland	lineage4	ERR2200006	S	S	S	n/a	S	S	S	S
7186-09	MSF	Swaziland	lineage4	ERR553182	R	S	S	R	R	S	S	R
6070-09	MSF	Swaziland	X-type	ERR2200065	S	S	S	n/a	S	S	S	S
5079-09	MSF	Swaziland	Haarlem	ERR2199992	S	S	S	n/a	S	S	S	S
4724-09	MSF	Swaziland	S-type	ERR552821 ERR	R	n/a	R	R	R	R	R	R
1053-10	MSF	Swaziland	X-type	ERR550959	R	R	R	n/a	R	R	R	U
10452-09	MSF	Swaziland	S-type	ERR552253 ERR	R	R	R	R	R	R	R	R
4695-09	MSF	Swaziland	LAM	ERR2199970	S	S	S	n/a	U	S	S	S
6643-09	MSF	Swaziland	X-type	ERR2200087	S	S	S	n/a	S	S	S	S
4339-09	MSF	Swaziland	lineage4	ERR552710	R	R	S	R	R	R	R	R
5758-09	MSF	Swaziland	S-type	ERR552981	R	R	S	S	R	R	S	S
10298-09	MSF	Swaziland	S-type	ERR552875 ERR	R	R	R	R	R	R	R	R
4697-09	MSF	Swaziland	S-type	ERR2199972	S	S	S	n/a	S	S	S	S
5072-09	MSF	Swaziland	LAM	ERR2199989	S	S	S	n/a	U	S	S	S
5114-09	MSF	Swaziland	Beijing	ERR551545	R	R	R	R	R	R	R	U
11237-09	MSF	Swaziland	EAI	ERR551739	R	R	R	R	R	R	R	R
4256-09	MSF	Swaziland	X-type	ERR2199924	S	S	S	n/a	S	S	S	S
5556-09	MSF	Swaziland	LAM	ERR2200038	S	S	S	n/a	S	S	S	S
4255-09	MSF	Swaziland	EAI	ERR2199923	S	S	S	n/a	S	S	S	S
5752-09	MSF	Swaziland	LAM	ERR2200049	S	S	S	n/a	R	S	S	S
11238-09	MSF	Swaziland	EAI	ERR552000	R	R	R	R	R	R	R	R
10438-09	MSF	Swaziland	S-type	ERR552405	R	R	R	R	R	R	R	R
4269-09	MSF	Swaziland	Beijing	ERR2199932	S	S	S	n/a	S	S	S	S
5130-09	MSF	Swaziland	EAI	ERR2200009	S	S	S	n/a	S	S	U	S
10706-09	MSF	Swaziland	X-type	ERR2199778 ER	R	R	R	n/a	R	R	R	U
9085-09	MSF	Swaziland	S-type	ERR551298 ERR	R	R	S	S	R	R	S	S
10292-09	MSF	Swaziland	X-type	ERR552619 ERR	S	S	S	n/a	S	S	S	S
5105-09	MSF	Swaziland	LAM	ERR2199999	S	S	S	n/a	S	S	S	S
9562-09	MSF	Swaziland	X-type	ERR550863 ERR	R	R	R	R	R	R	R	U
7173-09	MSF	Swaziland	X-type	ERR553342 ERR	R	R	R	n/a	R	R	R	U
8786-09	MSF	Swaziland	Haarlem	ERR550657	R	S	S	S	R	S	S	S
4258-09	MSF	Swaziland	LAM	ERR2199926	S	S	S	n/a	S	S	S	S
11015-09	MSF	Swaziland	S-type	ERR550861	R	R	R	R	R	R	R	R
4253-09	MSF	Swaziland	LAM	ERR2199922	S	S	S	n/a	S	S	S	S
4267-09	MSF	Swaziland	S-type	ERR2199930	S	S	S	n/a	S	S	S	S
4713-09	MSF	Swaziland	X-type	ERR553105	R	R	R	n/a	R	R	R	U
604-10	MSF	Swaziland	Beijing	ERR553241	S	R	S	S	S	R	S	S
5250-09	MSF	Swaziland	Beijing	ERR2200015	S	S	S	n/a	S	S	S	S
4691-09	MSF	Swaziland	EAI	ERR2199969	S	S	S	n/a	S	S	S	S
5083-09	MSF	Swaziland	LAM	ERR2199993	S	S	S	n/a	S	S	S	S
1207-10	MSF	Swaziland	Beijing	ERR2199807	S	S	S	n/a	S	S	S	S
8313-09	MSF	Swaziland	LAM	ERR552989 ERR	R	R	S	S	R	R	S	S
4688-09	MSF	Swaziland	Beijing	ERR551079	S	S	S	n/a	S	S	S	S
10451-09	MSF	Swaziland	S-type	ERR552672	R	R	R	R	R	R	R	R
5100-09	MSF	Swaziland	lineage4	ERR2199997 ER	R	R	R	R	R	R	R	R
4268-09	MSF	Swaziland	LAM	ERR2199931	S	S	S	n/a	U	S	S	S
6948-09	MSF	Swaziland	X-type	ERR2200096	S	S	S	n/a	S	S	S	S
117-10	MSF	Swaziland	Haarlem	ERR553053	R	R	R	R	R	R	R	R
9080-09	MSF	Swaziland	S-type	ERR551536	R	R	R	R	R	R	R	R
4731-09	MSF	Swaziland	S-type	ERR552396 ERR	S	S	S	n/a	S	S	S	S
8318-09	MSF	Swaziland	X-type	ERR551240 ERR	R	R	R	n/a	R	R	R	U
11016-09	MSF	Swaziland	X-type	ERR552720	R	R	R	n/a	R	R	R	U
110-10	MSF	Swaziland	EAI	ERR2199787	S	S	S	n/a	S	S	U	S
5741-09	MSF	Swaziland	lineage4	ERR552929	R	S	S	S	R	S	S	S
5572-09	MSF	Swaziland	lineage4	ERR2200039	S	S	S	n/a	S	S	S	S
8779-09	MSF	Swaziland	X-type	ERR552916 ERR	R	R	R	n/a	R	R	R	U
10513-09	MSF	Swaziland	LAM	ERR2199771	S	S	S	n/a	S	S	S	S
8592-09	MSF	Swaziland	LAM	ERR2200119	S	S	S	n/a	R	S	S	S
6078-09	MSF	Swaziland	Beijing	ERR2200066 ER	R	R	S	R	R	R	R	R
7704-09	MSF	Swaziland	X-type	ERR552151	R	R	S	R	R	R	R	U
6251-09	MSF	Swaziland	Beijing	ERR2200077	S	S	S	n/a	S	S	S	S
4283-09	MSF	Swaziland	Haarlem	ERR551045	R	R	S	R	R	R	S	R
5122-09	MSF	Swaziland	lineage4	ERR2200007	S	S	S	n/a	S	S	S	S
8303-09	MSF	Swaziland	EAI	ERR553134	R	R	R	R	R	R	R	R
5737-09	MSF	Swaziland	Beijing	ERR2200043	S	S	S	n/a	S	S	S	S
1202-10	MSF	Swaziland	X-type	ERR551692	R	R	R	R	R	R	R	R
7178-09	MSF	Swaziland	X-type	ERR552361	R	R	R	n/a	R	R	R	U
5102-09	MSF	Swaziland	LAM	ERR2199998	S	S	S	n/a	S	S	S	S
5268-09	MSF	Swaziland	X-type	ERR2200019	S	S	S	n/a	S	S	U	S
10704-09	MSF	Swaziland	S-type	ERR551280	R	R	R	R	R	R	R	R
4722-09	MSF	Swaziland	Beijing	ERR2199977	S	S	S	n/a	S	S	S	S
4293-09	MSF	Swaziland	EAI	ERR2199942	S	S	S	n/a	S	S	U	S
5246-09	MSF	Swaziland	S-type	ERR551242	R	R	R	R	R	R	R	R
4696-09	MSF	Swaziland	EAI	ERR2199971	S	S	S	n/a	S	S	S	S
6949-09	MSF	Swaziland	S-type	ERR551757 ERR	R	R	R	R	R	R	R	R
5108-09	MSF	Swaziland	X-type	ERR2200001	S	S	S	n/a	S	S	S	S
10505-09	MSF	Swaziland	X-type	ERR551246	R	R	R	n/a	R	R	R	U

8302-09	MSF	Swaziland	X-type	ERR550813	R	R	R	n/a	R	R	R	U
8587-09	MSF	Swaziland	Haarlem	ERR2200118	S	S	S	n/a	S	S	S	S
5264-09	MSF	Swaziland	LAM	ERR2200018	S	S	S	n/a	S	S	S	S
596-10	MSF	Swaziland	X-type	ERR551393	R	R	R	n/a	R	R	R	U
4277-09	MSF	Swaziland	Beijing	ERR2199938	S	S	S	n/a	S	S	S	S
5243-09	MSF	Swaziland	Beijing	ERR2200014	S	S	S	n/a	S	S	S	S
7185-09	MSF	Swaziland	S-type	ERR552124	R	R	R	R	R	R	R	R
5549-09	MSF	Swaziland	Haarlem	ERR2200034	S	S	S	n/a	S	S	S	S
4296-09	MSF	Swaziland	Beijing	ERR551854 ERR	S	S	S	n/a	S	S	S	S
5256-09	MSF	Swaziland	lineage4	ERR2200017	S	S	S	n/a	S	S	S	S
8316-09	MSF	Swaziland	EAI	ERR2200115	S	S	S	n/a	S	U	U	S
10701-09	MSF	Swaziland	S-type	ERR552870	R	n/a	R	R	R	R	R	R
4730-09	MSF	Swaziland	LAM	ERR2199981	S	S	S	n/a	U	S	S	S
7716-09	MSF	Swaziland	X-type	ERR553185 ERR	R	R	R	n/a	R	R	R	U
10293-09	MSF	Swaziland	X-type	ERR552295 ERR	R	R	R	n/a	R	R	R	U
11020-09	MSF	Swaziland	lineage4	ERR551456	R	R	S	R	R	R	S	R
6266-09	MSF	Swaziland	LAM	ERR552071	R	S	S	S	R	S	S	S
9565-09	MSF	Swaziland	X-type	ERR2200139	S	S	S	n/a	S	S	S	S
5274-09	MSF	Swaziland	Haarlem	ERR550872	R	S	S	S	S	S	S	S
5149-09	MSF	Swaziland	Beijing	ERR2200011 ER	R	S	S	n/a	R	S	S	S
173-10	MSF	Swaziland	LAM	ERR2199834	S	S	S	n/a	S	S	S	S
4288-09	MSF	Swaziland	Beijing	ERR553058	R	R	R	S	R	R	R	R
4248-09	MSF	Swaziland	S-type	ERR552193	R	R	R	R	R	R	R	R
597-10	MSF	Swaziland	S-type	ERR2200058 ER	R	R	R	R	R	R	R	R
601-10	MSF	Swaziland	X-type	ERR2200060 ER	R	R	R	R	R	R	R	U
5148-09	MSF	Swaziland	Beijing	ERR2200010	S	S	S	n/a	S	S	S	S
4716-09	MSF	Swaziland	LAM	ERR2199976	S	S	S	n/a	S	S	U	S
5569-09	MSF	Swaziland	Beijing	ERR553156 ERR	S	S	S	n/a	S	S	S	S
5797-09	MSF	Swaziland	LAM	ERR551391	R	S	S	S	R	S	S	S
4699-09	MSF	Swaziland	lineage4	ERR2199973	S	S	S	n/a	S	S	S	S
4290-09	MSF	Swaziland	EAI	ERR2199940	S	S	S	n/a	S	S	S	S
4259-09	MSF	Swaziland	LAM	ERR2199927	S	S	S	n/a	S	S	S	S
4257-09	MSF	Swaziland	Beijing	ERR2199925	S	S	S	n/a	R	S	S	S
7179-09	MSF	Swaziland	EAI	ERR552495	R	R	R	R	R	R	R	R
4249-09	MSF	Swaziland	Haarlem	ERR2199920	S	S	S	n/a	S	S	S	S
4721-09	MSF	Swaziland	S-type	ERR553230	R	R	R	R	R	R	R	R
5275-09	MSF	Swaziland	S-type	ERR2200022 ER	R	R	R	R	R	R	R	R
5273-09	MSF	Swaziland	Beijing	ERR2200021	S	S	S	n/a	S	S	S	S
10114-09	MSF	Swaziland	lineage4	ERR551166	R	R	R	R	R	R	R	R
119-10	MSF	Swaziland	X-type	ERR2199805 ER	R	R	R	R	R	R	R	U
4286-09	MSF	Swaziland	X-type	ERR2199939	S	S	S	n/a	S	S	U	S
4271-09	MSF	Swaziland	LAM	ERR2199934	S	S	S	n/a	R	S	S	S
6945-09	MSF	Swaziland	EAI	ERR2200095 ER	R	R	R	R	R	R	R	R
4709-09	MSF	Swaziland	S-type	ERR550741	R	R	R	R	R	R	R	R
111-10	MSF	Swaziland	lineage4	ERR551953	R	R	R	R	R	R	R	R
4297-09	MSF	Swaziland	EAI	ERR2199945	S	S	S	n/a	S	S	S	S
6652-09	MSF	Swaziland	X-type	ERR552073	R	R	R	R	R	R	R	U
1210-10	MSF	Swaziland	S-type	ERR551488	R	R	R	R	R	R	R	R
177-10	MSF	Swaziland	LAM	ERR2199842	S	S	S	n/a	R	S	S	S
7703-09	MSF	Swaziland	S-type	ERR552149 ERR	R	R	R	R	R	R	R	R
10703-09	MSF	Swaziland	lineage4	ERR551289	R	R	R	S	R	R	R	R
5104-09	MSF	Swaziland	LAM	ERR550794	R	S	S	S	R	S	S	S
4294-09	MSF	Swaziland	LAM	ERR2199943	S	S	S	n/a	S	S	U	S
9081-09	MSF	Swaziland	S-type	ERR552986 ERR	R	R	R	R	R	R	R	R
7699-09	MSF	Swaziland	Delhi	ERR2200105	S	S	S	n/a	S	S	S	S
5743-09	MSF	Swaziland	Beijing	ERR2200044	S	S	S	n/a	S	S	S	S
4335-09	MSF	Swaziland	X-type	ERR552108 ERR	S	S	S	n/a	S	S	S	S
4250-09	MSF	Swaziland	X-type	ERR2199921	S	S	S	n/a	S	S	S	S
5251-09	MSF	Swaziland	LAM	ERR553366	S	R	S	S	U	R	S	S
6637-09	MSF	Swaziland	EAI	ERR550869	R	R	R	R	R	R	R	R
4687-09	MSF	Swaziland	LAM	ERR2199968 ER	S	S	S	S	R	S	S	S
4291-09	MSF	Swaziland	LAM	ERR2199941	S	S	S	n/a	U	S	S	S
5107-09	MSF	Swaziland	S-type	ERR2200000	S	S	S	n/a	S	S	S	S
7708-09	MSF	Swaziland	lineage4	ERR552780	R	R	R	n/a	R	R	R	R
7712-09	MSF	Swaziland	lineage4	ERR551689	R	S	S	S	R	S	S	S
5551-09	MSF	Swaziland	lineage4	ERR2200035	S	S	S	n/a	S	S	S	S
9564-09	MSF	Swaziland	lineage4	ERR553001 ERR	R	R	R	R	R	R	F	R
175-10	MSF	Swaziland	EAI	ERR551801	R	R	R	R	R	R	R	R
4276-09	MSF	Swaziland	Beijing	ERR553324	S	S	S	n/a	S	S	U	S
5748-09	MSF	Swaziland	EAI	ERR2200046 ER	R	R	R	R	R	R	R	R
5537-09	MSF	Swaziland	lineage4	ERR2200030 ER	R	S	S	S	R	S	S	S
6247-09	MSF	Swaziland	Beijing	ERR2200075 ER	R	R	R	S	R	R	R	S
10108-09	MSF	Swaziland	S-type	ERR2199747 ER	R	R	R	R	R	R	R	R
5076-09	MSF	Swaziland	S-type	ERR2199991	S	S	S	n/a	S	S	U	S
11239-09	MSF	Swaziland	EAI	ERR553321	R	R	R	R	R	R	R	R
5282-09	MSF	Swaziland	S-type	ERR2200024	S	S	S	n/a	S	S	S	S
4333-09	MSF	Swaziland	EAI	ERR2199950	S	S	S	n/a	S	S	S	S
6944-09	MSF	Swaziland	S-type	ERR2200094 ER	R	R	R	R	R	R	R	R
4295-09	MSF	Swaziland	lineage4	ERR2199944	S	S	S	n/a	S	S	S	S
4287-09	MSF	Swaziland	Beijing	ERR619080	S	S	S	n/a	R	S	S	S
11023-09	MSF	Swaziland	S-type	ERR551014	R	R	R	R	R	R	R	R
5746-09	MSF	Swaziland	lineage4	ERR2200045	S	S	S	n/a	S	S	S	S
10504-09	MSF	Swaziland	lineage4	ERR552273	R	R	R	R	R	R	R	R
4301-09	MSF	Swaziland	lineage4	ERR2199947	S	S	S	n/a	S	S	S	S
7181-09	MSF	Swaziland	LAM	ERR553358	R	R	R	R	R	R	R	R
5115-09	MSF	Swaziland	S-type	ERR2200004	S	S	S	n/a	S	S	S	S
5759-09	MSF	Swaziland	Beijing	ERR2200051	S	S	S	n/a	S	S	S	S
1215-10	MSF	Swaziland	lineage4	ERR2199813 ER	S	S	S	n/a	S	S	S	S
4337-09	MSF	Swaziland	S-type	ERR2199951	S	S	S	n/a	S	S	S	S
5239-09	MSF	Swaziland	EAI	ERR2200013	S	S	S	n/a	S	S	U	S
4261-09	MSF	Swaziland	lineage4	ERR2199928	S	S	S	n/a	S	S	S	S
5771-09	MSF	Swaziland	Beijing	ERR2200052	S	S	S	n/a	S	S	S	S
4262-09	MSF	Swaziland	LAM	ERR2199929	S	S	S	n/a	S	S	S	S
10507-09	MSF	Swaziland	Beijing	ERR553313	R	R	R	R	R	R	R	U
5554-09	MSF	Swaziland	Haarlem	ERR2200037	S	S	S	n/a	S	S	S	S
7700-09	MSF	Swaziland	S-type	ERR552745	R	R	R	R	R	R	R	R
4700-09	MSF	Swaziland	S-type	ERR551609	R	n/a	R	R	R	R	R	R
5146-09	MSF	Swaziland	lineage4	ERR552701	R	R	S	R	R	R	R	R
5109-09	MSF	Swaziland	S-type	ERR552540	R	R	S	R	R	R	R	R
4345-09	MSF	Swaziland	EAI	ERR2199955	S	S	S	n/a	R	S	S	S
5075-09	MSF	Swaziland	lineage4	ERR2199990	S	S	S	n/a	S	S	S	S
5287-09	MSF	Swaziland	Beijing	ERR2200025	S	S	S	n/a	S	R	S	S
10512-09	MSF	Swaziland	EAI	ERR551319	R	R	R	R	R	R	R	R
6255-09	MSF	Swaziland	X-type	ERR551937 ERR	R	R	R	R	R	R	R	U
7192-09	MSF	Swaziland	Haarlem	ERR551578	R	R	S	S	R	R	U	S
4330-09	MSF	Swaziland	lineage4	ERR552456	R	R	S	R	R	R	R	R
10115-09	MSF	Swaziland	S-type	ERR2199748 ER	R	R	R	R	R	R	R	R
4252-09	MSF	Swaziland	X-type	ERR550619	R	R	R	R	R	R	R	R
5073-09	MSF	Swaziland	X-type	ERR552751	R	R	R	n/a	R	R	R	U
113-10	MSF	Swaziland	Haarlem	ERR551537	R	R	S	R	F	F	S	F
11234-09	MSF	Swaziland	EAI	ERR2199793 ER	R	R	R	R	R	R	R	R
5269-09	MSF	Swaziland	Haarlem	ERR2200020	S	S	S	n/a	S	S	S	S
8591-09	MSF	Swaziland	X-type	ERR552181 ERR	R	R	R	n/a	R	R	R	U
11236-09	MSF	Swaziland	EAI	ERR550754	R	R	R	R	R	R	R	R
8580-09	MSF	Swaziland	LAM	ERR2200117	S	S	S	n/a	S	S	S	S
5117-09	MSF	Swaziland	lineage4	ERR2200005	S	S	S	n/a	S	S	S	S

6653-09	MSF	Swaziland	LAM	ERR2200088	S	S	S	n/a	S	S	S	S
5069-09	MSF	Swaziland	X-type	ERR2199988 ER	R	R	R	R	R	R	F	F
5558-09	MSF	Swaziland	EAI	ERR551899	R	R	R	R	R	R	F	R
6087-09	MSF	Swaziland	X-type	ERR2200068 ER	S	S	S	n/a	S	S	S	S
8784-09	MSF	Swaziland	lineage4	ERR552809	R	R	R	R	R	R	R	R
7172-09	MSF	Swaziland	lineage4	ERR2200103	S	S	S	n/a	S	S	S	S
4272-09	MSF	Swaziland	X-type	ERR2199935	S	S	S	n/a	S	S	S	S
10294-09	MSF	Swaziland	S-type	ERR2199757 ER	R	R	R	R	R	R	R	R
6256-09	MSF	Swaziland	X-type	ERR2200078	S	S	S	n/a	S	S	S	S
4712-09	MSF	Swaziland	X-type	ERR552518	R	R	R	R	R	R	R	R
6268-09	MSF	Swaziland	Haarlem	ERR2200080	S	S	S	n/a	S	S	S	S
6267-09	MSF	Swaziland	X-type	ERR552993 ERR	R	R	R	R	R	R	R	U
5539-09	MSF	Swaziland	lineage4	ERR2200032	S	S	S	n/a	S	S	S	S
5544-09	MSF	Swaziland	X-type	ERR2200033	S	S	S	n/a	S	S	S	S
6269-09	MSF	Swaziland	Haarlem	ERR553216	R	R	R	R	R	R	R	R
1213-10	MSF	Swaziland	Haarlem	ERR2199811 ER	S	S	S	S	S	S	S	S
7171-09	MSF	Swaziland	X-type	ERR553264	R	R	R	n/a	R	R	R	U
5118-09	MSF	Swaziland	S-type	ERR550867 ERR	S	S	S	n/a	S	S	S	S
6265-09	MSF	Swaziland	Beijing	ERR552743	S	S	S	n/a	S	S	S	S
4270-09	MSF	Swaziland	Beijing	ERR2199933	S	S	S	n/a	S	S	S	S
5080-09	MSF	Swaziland	S-type	ERR552599	R	R	R	R	R	R	R	R
5772-09	MSF	Swaziland	X-type	ERR550734	R	R	R	R	R	R	R	U
8581-09	MSF	Swaziland	lineage4	ERR552463	R	R	S	R	R	R	R	R
4289-09	MSF	Swaziland	LAM	ERR552352	R	S	S	R	R	S	S	R
4725-09	MSF	Swaziland	S-type	ERR552637	R	n/a	R	R	R	R	R	R
8781-09	MSF	Swaziland	S-type	ERR552070	R	R	R	R	R	R	R	R
10116-09	MSF	Swaziland	S-type	ERR2199749	S	S	S	n/a	S	S	S	S
4275-09	MSF	Swaziland	LAM	ERR2199937	S	S	S	n/a	S	S	S	S
4328-09	MSF	Swaziland	EAI	ERR2199949	S	S	S	n/a	S	S	S	S
4703-09	MSF	Swaziland	Beijing	ERR551071	S	S	S	n/a	S	S	S	S
6249-09	MSF	Swaziland	Haarlem	ERR2200076	S	S	S	n/a	S	S	S	S
6263-09	MSF	Swaziland	Haarlem	ERR2200079	S	S	S	n/a	S	S	S	S
8304-09	MSF	Swaziland	Beijing	ERR553116	S	R	S	S	S	R	S	S
10442-09	MSF	Swaziland	lineage4	ERR2199768 ER	R	R	S	R	R	R	S	R
5753-09	MSF	Swaziland	S-type	ERR552484	R	R	R	R	R	R	R	R
8576-09	MSF	Swaziland	S-type	ERR553282	R	R	R	R	R	R	R	R
5276-09	MSF	Swaziland	LAM	ERR2200023	S	S	S	n/a	S	S	S	S
4735-09	MSF	Swaziland	LAM	ERR2199982	S	S	S	n/a	S	S	S	S
4300-09	MSF	Swaziland	EAI	ERR2199946	S	S	S	n/a	S	S	S	S
4343-09	MSF	Swaziland	LAM	ERR2199952	S	S	S	n/a	S	S	S	S
WMB430/43-12700	Thailand via University of Singapore	Thailand	Beijing	SAMN07236448	S	S	S	n/a	S	S	S	S
WMB476/46-10698	Thailand via University of Singapore	Thailand	Beijing	SAMN07236487	S	S	S	n/a	S	S	S	S
WMB261/DS-20512	Thailand via University of Singapore	Thailand	Beijing	SAMN07236285	R	R	R	n/a	R	R	R	R
WMB422/42-19187	Thailand via University of Singapore	Thailand	Beijing	SAMN07236440	R	S	S	n/a	R	S	S	S
WMB322/DS-15901	Thailand via University of Singapore	Thailand	Beijing	SAMN07360950	R	R	S	n/a	R	F	S	S
WMB238/DS-08775	Thailand via University of Singapore	Thailand	Beijing	SAMN07236262	R	R	R	n/a	R	R	R	U
WBB284/DS-31231	Thailand via University of Singapore	Thailand	Beijing	SAMN07236538	R	R	R	n/a	R	R	R	R
WMB321/DS-15862	Thailand via University of Singapore	Thailand	Beijing	SAMN07236343	R	R	S	n/a	F	F	S	S
WMB464/CSF-3542	Thailand via University of Singapore	Thailand	Beijing	SAMN07236477	S	S	S	n/a	S	S	U	S
WMB388/DS-30902	Thailand via University of Singapore	Thailand	Beijing	SAMN07236406	R	R	S	n/a	R	R	S	S
WBB280/DS-29147	Thailand via University of Singapore	Thailand	Beijing	SAMN07236534	R	R	R	n/a	R	R	R	R
WMB300/DS-13819	Thailand via University of Singapore	Thailand	Beijing	SAMN07236322	R	R	R	n/a	R	R	R	R
WMB296/DS-33048	Thailand via University of Singapore	Thailand	Beijing	SAMN07236318	R	R	R	n/a	R	R	R	R
WBB264/DS-17092	Thailand via University of Singapore	Thailand	Beijing	SAMN07236520	R	R	S	n/a	U	R	R	R
WMB382/DS-25482	Thailand via University of Singapore	Thailand	Beijing	SAMN07236400	R	R	n/a	n/a	R	R	S	U
WMB366/DS-23415	Thailand via University of Singapore	Thailand	Beijing	SAMN07236385	R	R	R	n/a	R	R	R	R
WMB454/CSF-3382	Thailand via University of Singapore	Thailand	Beijing	SAMN07236469	S	S	S	n/a	S	S	S	S
WMB287/DS-30777	Thailand via University of Singapore	Thailand	Beijing	SAMN07236309	R	R	S	n/a	R	R	R	R
WMB447/CSF-2894	Thailand via University of Singapore	Thailand	Beijing	SAMN07236464	S	S	S	n/a	S	S	S	S
WMB370/DS-24060	Thailand via University of Singapore	Thailand	Beijing	SAMN07236389	R	R	R	n/a	R	R	R	R
WMB340/DS-19383	Thailand via University of Singapore	Thailand	Beijing	SAMN07236360	R	R	S	n/a	R	R	S	S
WMB292/DS-32101	Thailand via University of Singapore	Thailand	Beijing	SAMN07236314	R	R	R	n/a	R	R	R	R
WMB423/43-01910	Thailand via University of Singapore	Thailand	EAI	SAMN07236441	S	S	S	n/a	S	U	S	S
WMB417/DS-20257	Thailand via University of Singapore	Thailand	Beijing	SAMN07236435	S	S	S	n/a	S	S	S	S
WBB260/DS-16780	Thailand via University of Singapore	Thailand	Beijing	SAMN07236516	R	R	S	n/a	U	R	R	U
WMB282/DS-29788	Thailand via University of Singapore	Thailand	Beijing	SAMN07236304	S	R	S	n/a	R	F	S	U
WMB229/DS-16496	Thailand via University of Singapore	Thailand	Beijing	SAMN07236255	R	R	R	n/a	R	R	R	R
WMB409/DS-15367	Thailand via University of Singapore	Thailand	Beijing	SAMN07236427	S	S	S	n/a	S	S	S	S
WMB315/DS-14459	Thailand via University of Singapore	Thailand	Beijing	SAMN07236337	R	R	R	n/a	F	F	F	F
WMB295/DS-32505	Thailand via University of Singapore	Thailand	Beijing	SAMN07236317	R	R	S	n/a	R	F	U	R
WMB361/DS-21625	Thailand via University of Singapore	Thailand	Beijing	SAMN07236380	R	R	n/a	n/a	R	R	S	S
WMB222/DS-06765	Thailand via University of Singapore	Thailand	Beijing	SAMN07236248	R	R	R	n/a	R	R	R	R
WMB446/CSF-2498	Thailand via University of Singapore	Thailand	Beijing	SAMN07236463	S	S	S	n/a	S	S	S	S
WMB482/48-10231	Thailand via University of Singapore	Thailand	Beijing	SAMN07236491	R	S	S	n/a	R	S	S	S
WMB342/DS-20136	Thailand via University of Singapore	Thailand	EAI	SAMN07236362	R	R	R	n/a	R	R	S	S
WMB247/DS-11861	Thailand via University of Singapore	Thailand	Beijing	SAMN07236271	R	R	R	n/a	R	R	R	R
WBB261/DS-16825	Thailand via University of Singapore	Thailand	Beijing	SAMN07236517	R	R	R	n/a	R	S	U	R
WMB367/DS-23522	Thailand via University of Singapore	Thailand	Beijing	SAMN07236386	R	R	n/a	n/a	R	R	R	S
WMB375/DS-24447	Thailand via University of Singapore	Thailand	Beijing	SAMN07236393	R	R	R	n/a	R	R	R	F
WMB224/DS-13006	Thailand via University of Singapore	Thailand	EAI	SAMN07236250	R	R	S	n/a	R	R	U	S
WMB400/DS-12158	Thailand via University of Singapore	Thailand	Beijing	SAMN07236418	R	R	S	n/a	R	R	R	R
WMB470/CSF-3681	Thailand via University of Singapore	Thailand	Beijing	SAMN07236482	S	S	S	n/a	S	S	S	S
WMB407/DS-15177	Thailand via University of Singapore	Thailand	Beijing	SAMN07236425	S	S	S	n/a	S	S	S	S
WMB479/CSF-3922	Thailand via University of Singapore	Thailand	EAI	SAMN07236489	S	S	S	n/a	U	S	S	S
WMB269/DS-21261	Thailand via University of Singapore	Thailand	Beijing	SAMN07236293	R	R	n/a	n/a	Beijing	R	U	R
WMB318/DS-15492	Thailand via University of Singapore	Thailand	Beijing	SAMN07236340	R	R	S	n/a	R	R	R	S
WMB297/DS-33051	Thailand via University of Singapore	Thailand	Beijing	SAMN07236319	R	R	R	n/a	Beijing	R	U	R
WMB439/46-18357	Thailand via University of Singapore	Thailand	EAI	SAMN07236457	S	S	S	n/a	S	S	S	S
WMB289/DS-31524	Thailand via University of Singapore	Thailand	Beijing	SAMN07236311	R	R	R	n/a	Beijing	R	R	R
WMB279/DS-28473	Thailand via University of Singapore	Thailand	Beijing	SAMN07360949	R	R	R	n/a	R	R	R	S
WMB272/DS-24901	Thailand via University of Singapore	Thailand	Beijing	SAMN07236296	R	R	R	n/a	R	R	U	R
WMB254/DS-18227	Thailand via University of Singapore	Thailand	Beijing	SAMN07236278	R	R	R	n/a	R	R	R	R
WMB316/DS-14460	Thailand via University of Singapore	Thailand	Beijing	SAMN07236338	R	R	S	n/a	R	R	R	R
WMB472/CSF-3718	Thailand via University of Singapore	Thailand	EAI	SAMN07236484	S	S	S	n/a	S	S	S	S
WMB244/DS-15773	Thailand via University of Singapore	Thailand	Beijing	SAMN07236268	R	R	S	n/a	R	R	R	R
WMB405/DS-14607	Thailand via University of Singapore	Thailand	Beijing	SAMN07236423	S	S	S	n/a	S	S	S	S
WMB267/DS-21129	Thailand via University of Singapore	Thailand	Beijing	SAMN07236291	R	R	R	n/a	R	R	R	R
WMB415/DS-19997	Thailand via University of Singapore	Thailand	EAI	SAMN07236433	S	S	S	n/a	S	S	U	S
WMB346/DS-20225	Thailand via University of Singapore	Thailand	Beijing	SAMN07236365	R	R	R	n/a	R	R	R	R
WMB291/DS-31852	Thailand via University of Singapore	Thailand	Beijing	SAMN07236313	R	R	R	n/a	R	R	R	R
WMB355/DS-20915	Thailand via University of Singapore	Thailand	Beijing	SAMN07236374	R	R	n/a	n/a	R	R	R	U
WMB274/DS-25520	Thailand via University of Singapore	Thailand	Beijing	SAMN07236297	R	R	S	n/a	R	R	R	S
WMB386/DS-25946	Thailand via University of Singapore	Thailand	Beijing	SAMN07236404	R	R	n/a	n/a	R	R	F	S
WMB259/DS-19810	Thailand via University of Singapore	Thailand	EAI	SAMN07236283	R	R	R	n/a	R	F	R	F
WMB357/DS-21031	Thailand via University of Singapore	Thailand	Beijing	SAMN07236376	R	R	R	n/a	R	R	R	U
WBB259/DS-16220	Thailand via University of Singapore	Thailand	Beijing	SAMN07236515	R	R	R	n/a	R	R	R	S
WMB418/DS-20316	Thailand via University of Singapore	Thailand	Beijing	SAMN07236436	S	S	S	n/a	S	S	S	S
WMB276/DS-26452	Thailand via University of Singapore	Thailand	Beijing	SAMN07236299	R	R	n/a	n/a	Beijing	R	R	F
WMB260/DS-20000	Thailand via University of Singapore	Thailand	Ural	SAMN07236284	R	R	R	n/a	R	R	R	R
WMB377/DS-24593	Thailand via University of Singapore	Thailand	EAI	SAMN07236395	R	R	S	n/a	R	R	S	S
WMB275/DS-26102	Thailand via University of Singapore	Thailand	Beijing	SAMN07236298	S	R	n/a	n/a	S	S	S	S
WMB414/DS-19861	Thailand via University of Singapore	Thailand	Beijing	SAMN07236432	S	S	S	n/a	S	S	S	S
WMB332/DS-19168	Thailand via University of Singapore	Thailand	EAI	SAMN07236352	R	R	R	n/a	R	R	S	S
WMB480/48-10563	Thailand via University of Singapore	Thailand	Beijing	SAMN07236490	R	S	S	n/a	R	S	S	S
WMB389/DS-30951	Thailand via University of Singapore	Thailand	Beijing	SAMN07236407	R	R	S	n/a	F	R	S	S
WMB271/DS-21363	Thailand via University of Singapore	Thailand	Beijing	SAMN07236295	R	R	n/a	n/a	R	R	R	R

WMB273/DS-25474	Thailand via University of Singapore	Thailand	Beijing	SAMN07360948	R	R	n/a	n/a	R	R	R	U
WBB263/DS-17016	Thailand via University of Singapore	Thailand	Beijing	SAMN07236519	R	R	R	n/a	R	R	R	F
WMB314/DS-14418	Thailand via University of Singapore	Thailand	Beijing	SAMN07236336	R	R	S	n/a	R	R	R	R
WMB319/DS-15504	Thailand via University of Singapore	Thailand	Beijing	SAMN07236341	R	R	R	n/a	R	R	U	S
WMB453/47-5556	Thailand via University of Singapore	Thailand	Beijing	SAMN07236468	S	S	S	n/a	S	S	S	S
WMB406/DS-14963	Thailand via University of Singapore	Thailand	EAI	SAMN07236424	S	S	S	n/a	S	S	S	S
WMB268/DS-21256	Thailand via University of Singapore	Thailand	Beijing	SAMN07236292	R	R	n/a	n/a	R	R	R	U
WMB387/DS-26071	Thailand via University of Singapore	Thailand	Beijing	SAMN07236405	R	R	n/a	n/a	R	R	R	R
WMB460/CSF-3520	Thailand via University of Singapore	Thailand	Beijing	SAMN07236473	S	S	S	n/a	S	S	S	S
WMB228/DS-13085	Thailand via University of Singapore	Thailand	EAI	SAMN07236254	R	R	S	n/a	R	R	U	S
WMB302/DS-13922	Thailand via University of Singapore	Thailand	Beijing	SAMN07236324	R	R	R	n/a	R	R	R	R
WBB257/DS-15966	Thailand via University of Singapore	Thailand	Beijing	SAMN07236513	R	R	R	n/a	R	R	R	R
WMB383/DS-25553	Thailand via University of Singapore	Thailand	Beijing	SAMN07236401	R	R	n/a	n/a	R	R	R	R
WMB416/DS-20072	Thailand via University of Singapore	Thailand	EAI	SAMN07236434	S	S	S	n/a	S	S	S	S
WMB288/DS-30870	Thailand via University of Singapore	Thailand	EAI	SAMN07236310	S	S	S	n/a	S	S	S	S
WMB429/43-12683	Thailand via University of Singapore	Thailand	lineage4	SAMN07236447	S	S	S	n/a	S	S	S	S
WMB253/DS-18044	Thailand via University of Singapore	Thailand	Ural	SAMN07236277	R	R	R	n/a	R	R	R	R
WMB283/DS-30254	Thailand via University of Singapore	Thailand	Beijing	SAMN07236305	R	R	S	n/a	R	R	R	R
WMB394/DS-31799	Thailand via University of Singapore	Thailand	Beijing	SAMN07236412	R	R	R	n/a	R	R	U	F
WMB232/DS-13458	Thailand via University of Singapore	Thailand	S-type	SAMN07236257	R	R	R	n/a	R	R	U	S
WMB363/DS-21768	Thailand via University of Singapore	Thailand	Beijing	SAMN07236382	R	R	n/a	n/a	R	R	R	F
WMB484/CSF-4014	Thailand via University of Singapore	Thailand	EAI	SAMN07236493	R	S	S	n/a	R	U	U	R
WMB469/42-20464	Thailand via University of Singapore	Thailand	Beijing	SAMN07236481	S	S	S	n/a	S	S	S	S
WMB330/DS-18964	Thailand via University of Singapore	Thailand	Beijing	SAMN07236350	R	R	R	n/a	R	R	R	S
WMB368/DS-23682	Thailand via University of Singapore	Thailand	Beijing	SAMN07236387	R	R	R	n/a	R	R	F	S
WMB341/DS-20092	Thailand via University of Singapore	Thailand	Beijing	SAMN07236361	R	R	R	n/a	R	F	F	F
WMB245/DS-17305	Thailand via University of Singapore	Thailand	EAI	SAMN07236269	R	R	R	n/a	R	R	R	F
WMB478/48-4979	Thailand via University of Singapore	Thailand	Beijing	SAMN07236488	S	S	S	n/a	S	S	S	S
WMB435/43-19186	Thailand via University of Singapore	Thailand	EAI	SAMN07236453	S	S	S	n/a	S	S	U	S
WMB251/DS-12236	Thailand via University of Singapore	Thailand	Beijing	SAMN07236275	R	R	R	n/a	R	R	R	R
WMB401/DS-16616	Thailand via University of Singapore	Thailand	Beijing	SAMN07236419	R	R	R	n/a	R	R	S	S
WBB283/DS-30971	Thailand via University of Singapore	Thailand	Beijing	SAMN07236537	R	R	R	n/a	R	R	R	U
WMB249/DS-17658	Thailand via University of Singapore	Thailand	Beijing	SAMN07236273	R	R	R	n/a	R	R	R	R
WBB278/DS-27535	Thailand via University of Singapore	Thailand	Beijing	SAMN07236532	R	R	n/a	n/a	R	R	R	R
WMB248/DS-15837	Thailand via University of Singapore	Thailand	EAI	SAMN07236272	R	R	R	n/a	R	R	R	R
WMB463/CSF-3541	Thailand via University of Singapore	Thailand	EAI	SAMN07236476	S	S	S	n/a	S	S	S	S
WMB413/DS-19477	Thailand via University of Singapore	Thailand	lineage4	SAMN07236431	S	S	S	n/a	S	U	U	S
WMB290/DS-31545	Thailand via University of Singapore	Thailand	Beijing	SAMN07236312	R	R	R	n/a	R	R	R	R
WMB496/CSF-4650	Thailand via University of Singapore	Thailand	EAI	SAMN07236505	R	S	S	n/a	S	S	S	S
WMB264/DS-20910	Thailand via University of Singapore	Thailand	Beijing	SAMN07236288	R	R	n/a	n/a	R	R	R	U
WMB250/DS-10275	Thailand via University of Singapore	Thailand	Beijing	SAMN07236274	R	R	R	n/a	R	R	R	R
WMB280/DS-29208	Thailand via University of Singapore	Thailand	Beijing	SAMN07236302	R	R	R	n/a	R	R	R	R
WMB421/DS-20202	Thailand via University of Singapore	Thailand	S-type	SAMN07236439	S	S	S	n/a	S	S	S	S
WMB326/DS-16282	Thailand via University of Singapore	Thailand	Beijing	SAMN07236347	R	R	S	n/a	R	R	S	S
WMB468/42-14745	Thailand via University of Singapore	Thailand	S-type	SAMN07236480	S	S	S	n/a	S	S	S	S
WBB281/DS-29366	Thailand via University of Singapore	Thailand	Beijing	SAMN07236535	R	R	R	n/a	R	R	R	U
WBB285/DS-32449	Thailand via University of Singapore	Thailand	Beijing	SAMN07236539	R	R	R	n/a	R	R	R	U
WBB265/DS-17653	Thailand via University of Singapore	Thailand	Beijing	SAMN07236521	R	R	R	n/a	R	R	U	S
WMB328/DS-16314	Thailand via University of Singapore	Thailand	Beijing	SAMN07236349	R	R	S	n/a	S	S	S	S
WMB408/DS-15203	Thailand via University of Singapore	Thailand	Beijing	SAMN07236426	S	S	S	n/a	S	S	S	S
WMB376/DS-24457	Thailand via University of Singapore	Thailand	EAI	SAMN07236394	R	R	S	n/a	S	S	S	S
WMB381/DS-25234	Thailand via University of Singapore	Thailand	Beijing	SAMN07236399	R	R	R	n/a	R	R	R	R
WMB462/CSF-3538	Thailand via University of Singapore	Thailand	EAI	SAMN07236475	R	R	R	n/a	R	R	R	R
WBB270/DS-19048	Thailand via University of Singapore	Thailand	Beijing	SAMN07236525	R	R	R	n/a	R	R	R	S
WBB271/DS-19109	Thailand via University of Singapore	Thailand	Beijing	SAMN07236526	R	R	R	n/a	R	R	R	U
WMB362/DS-21639	Thailand via University of Singapore	Thailand	Beijing	SAMN07236381	R	R	n/a	n/a	R	R	R	S
WMB286/DS-30535	Thailand via University of Singapore	Thailand	Beijing	SAMN07236308	R	R	S	n/a	R	R	R	R
WMB378/DS-24900	Thailand via University of Singapore	Thailand	Beijing	SAMN07236396	R	R	R	n/a	R	R	R	S
WMB393/DS-31665	Thailand via University of Singapore	Thailand	Beijing	SAMN07236411	R	R	R	n/a	R	R	R	R
WBB276/DS-26339	Thailand via University of Singapore	Thailand	EAI	SAMN07236530	R	R	n/a	n/a	S	S	U	S
WMB285/DS-30442	Thailand via University of Singapore	Thailand	Beijing	SAMN07236307	S	R	S	n/a	S	R	S	S
WMB351/DS-20550	Thailand via University of Singapore	Thailand	Beijing	SAMN07236370	R	R	R	n/a	R	R	R	S
WMB379/DS-24957	Thailand via University of Singapore	Thailand	Tur	SAMN07236397	R	R	R	n/a	R	R	R	S
WMB335/DS-19259	Thailand via University of Singapore	Thailand	Beijing	SAMN07236355	R	R	R	n/a	R	R	R	S
WMB448/CSF-3053	Thailand via University of Singapore	Thailand	EAI	SAMN07236465	S	S	S	n/a	S	S	S	S
WMB452/CSF-3367	Thailand via University of Singapore	Thailand	Beijing	SAMN07236467	S	S	S	n/a	S	S	S	S
WMB427/43-11467	Thailand via University of Singapore	Thailand	Beijing	SAMN07236445	S	S	S	n/a	S	S	S	S
WMB457/47-10904	Thailand via University of Singapore	Thailand	Beijing	SAMN07236471	S	S	S	n/a	S	S	S	S
WMB237/DS-16630	Thailand via University of Singapore	Thailand	Beijing	SAMN07236261	R	R	R	n/a	R	R	R	U
WMB334/DS-19200	Thailand via University of Singapore	Thailand	Beijing	SAMN07236354	R	R	R	n/a	R	R	U	R
WMB392/DS-31586	Thailand via University of Singapore	Thailand	Tur	SAMN07236410	R	R	S	n/a	R	R	U	S
WMB309/DS-16144	Thailand via University of Singapore	Thailand	Beijing	SAMN07236331	R	R	R	n/a	R	R	R	R
WMB440/46-19260	Thailand via University of Singapore	Thailand	lineage4	SAMN07236458	S	S	S	n/a	S	S	S	S
WMB475/46-5069	Thailand via University of Singapore	Thailand	EAI	SAMN07236486	S	S	S	n/a	S	S	S	S
WMB236/DS-13671	Thailand via University of Singapore	Thailand	Beijing	SAMN07236260	R	R	R	n/a	U	R	R	U
WMB331/DS-19155	Thailand via University of Singapore	Thailand	Beijing	SAMN07236351	R	R	R	n/a	R	R	S	S
WMB380/DS-25029	Thailand via University of Singapore	Thailand	Beijing	SAMN07236398	R	R	R	n/a	R	R	R	S
WMB384/DS-25707	Thailand via University of Singapore	Thailand	Beijing	SAMN07236402	R	R	n/a	n/a	R	R	S	S
WMB403/DS-18613	Thailand via University of Singapore	Thailand	Beijing	SAMN07236421	R	R	S	n/a	R	R	R	R
WMB266/DS-21034	Thailand via University of Singapore	Thailand	Beijing	SAMN07236290	R	R	R	n/a	R	R	R	R
WMB235/DS-11221	Thailand via University of Singapore	Thailand	Beijing	SAMN07236259	R	R	R	n/a	R	R	R	S
WBB262/DS-17012	Thailand via University of Singapore	Thailand	Beijing	SAMN07236518	R	R	R	n/a	F	F	F	U
WBB272/DS-20120	Thailand via University of Singapore	Thailand	Beijing	SAMN07236527	S	R	n/a	n/a	U	R	R	S
WMB293/DS-32317	Thailand via University of Singapore	Thailand	EAI	SAMN07236315	R	R	S	n/a	R	R	U	S
WMB350/DS-20503	Thailand via University of Singapore	Thailand	EAI	SAMN07236369	R	R	R	n/a	S	U	S	S
WMB347/DS-20259	Thailand via University of Singapore	Thailand	Beijing	SAMN07236366	R	R	R	n/a	R	R	S	S
WMB364/DS-22290	Thailand via University of Singapore	Thailand	Beijing	SAMN07236383	R	R	n/a	n/a	R	R	R	R
WMB471/CSF-3711	Thailand via University of Singapore	Thailand	EAI	SAMN07236483	S	S	S	n/a	S	S	S	S
WMB354/DS-20815	Thailand via University of Singapore	Thailand	Beijing	SAMN07236373	R	R	n/a	n/a	R	R	S	S
WMB306/DS-16226	Thailand via University of Singapore	Thailand	Beijing	SAMN07236328	R	R	R	n/a	R	R	R	S
WMB420/DS-20168	Thailand via University of Singapore	Thailand	EAI	SAMN07236438	S	S	S	n/a	S	S	S	S
WBB256/DS-6882	Thailand via University of Singapore	Thailand	Beijing	SAMN07236512	R	R	R	n/a	R	R	R	R
WMB345/DS-20224	Thailand via University of Singapore	Thailand	Beijing	SAMN07360951	R	R	R	n/a	R	R	R	R
WMB225/DS-16260	Thailand via University of Singapore	Thailand	EAI	SAMN07236251	R	R	R	n/a	R	R	R	R
WMB339/DS-19355	Thailand via University of Singapore	Thailand	Beijing	SAMN07236359	R	R	S	n/a	R	R	S	S
WMB371/DS-24258	Thailand via University of Singapore	Thailand	Beijing	SAMN07236390	R	R	R	n/a	R	R	R	R
WBB266/DS-17688	Thailand via University of Singapore	Thailand	Beijing	SAMN07236522	R	R	R	n/a	R	R	R	S
WMB223/DS-10284	Thailand via University of Singapore	Thailand	Beijing	SAMN07236249	R	R	R	n/a	R	R	U	S
WBB255/DS-6265	Thailand via University of Singapore	Thailand	LAM	SAMN07236511	R	R	R	n/a	R	R	R	S
WMB397/DS-32630	Thailand via University of Singapore	Thailand	Beijing	SAMN07236415	R	R	R	n/a	R	R	R	R
WMB312/DS-13295	Thailand via University of Singapore	Thailand	EAI	SAMN07236334	R	R	R	n/a	R	R	R	U
WMB255/DS-18938	Thailand via University of Singapore	Thailand	Beijing	SAMN07236279	R	R	R	n/a	R	R	R	U
WMB410/DS-15561	Thailand via University of Singapore	Thailand	EAI	SAMN07236428	S	S	S	n/a	S	S	S	S
WMB359/DS-21517	Thailand via University of Singapore	Thailand	Beijing	SAMN07236378	R	R	n/a	n/a	R	R	R	S
WMB374/DS-24426	Thailand via University of Singapore	Thailand	lineage4	SAMN07236392	R	R	S	n/a	S	S	S	S
WMB303/DS-14490	Thailand via University of Singapore	Thailand	Beijing	SAMN07236325	R	R	R	n/a	R	R	R	R
WMB262/DS-20535	Thailand via University of Singapore	Thailand	Beijing	SAMN07236286	R	R	n/a	n/a	R	R	R	R
WMB320/DS-15559	Thailand via University of Singapore	Thailand	Beijing	SAMN07236342	R	R	S	n/a	R	F	F	S
WMB298/CSF-4374	Thailand via University of Singapore	Thailand	EAI	SAMN07236320	R	R	S	n/a	S	S	S	S
WMB465/47-17522	Thailand via University of Singapore	Thailand	Beijing	SAMN07236478	S	S	S	n/a	S	S	S	S
WMB431/43-13037	Thailand via University of Singapore	Thailand	EAI	SAMN07236449	R	S	S	n/a	R	U	S	S
WMB299/DS-34062	Thailand via University of Singapore	Thailand	Beijing	SAMN07236321	R	R	R	n/a	R	R	U	S
WMB353/DS-20813	Thailand via University of Singapore	Thailand	Beijing	SAMN07236372	R	R	n/a	n/a	R	R	S	S
WMB352/DS-20670	Thailand via University of Singapore	Thailand	Beijing	SAMN07236371	R	R	R	n/a	R	R	R	R
WMB257/DS-19488	Thailand via University of Singapore	Thailand	Beijing	SAMN07236281	R	R	R	n/a	R	R	R	S
WBB268/DS-17984	Thailand via University of Singapore	Thailand	Beijing	SAMN07236523	R	R	S	n/a	R	R	S	S

14.0609751	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0611150	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0613384	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0618501	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0618346	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0604301	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600715	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600760	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0609451	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
12.0613656	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
13.0609878	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600791	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0613207	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601116	Birmingham	UK	lineage4	S	S	S	S	S	S	U	S
15.0611664	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0613552	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
16.0618518	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
12.0615228	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607160	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0604639	Birmingham	UK	M. bovis	S	S	S	R	S	S	S	R
14.0609326	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
16.0610438	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
10.0604992	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
14.0602981	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600232	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600968	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
13.0608572	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
15.0607529	Birmingham	UK	EAI	S	S	S	S	U	S	S	S
16.0601859	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601192	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
12.0610875	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609245	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0603317	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600418	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
14.0602059	Birmingham	UK	LAM	R	S	S	S	R	S	S	S
15.0607338	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
12.0612788	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
14.0609529	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
12.0615219	Birmingham	UK	Tur	R	S	S	S	R	S	S	S
13.0601211	Birmingham	UK	Tur	S	S	S	S	S	S	S	S
14.0600472	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0606095	Birmingham	UK	EAI	R	S	S	n/a	R	S	S	S
12.0616381	Birmingham	UK	EAI	S	S	S	S	S	S	U	S
16.0601830	Birmingham	UK	Uganda	S	S	S	S	S	S	S	S
15.0607931	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0609481	Birmingham	UK	Beijing	R	R	R	R	R	R	R	R
16.0617386	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
12.0614867	Birmingham	UK	Ural	S	S	S	S	S	S	S	S
15.0601455	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0613205	Birmingham	UK	EAI	R	S	S	S	R	S	U	S
13.0615665	Birmingham	UK	Beijing	R	R	S	n/a	R	R	R	U
15.0601460	Birmingham	UK	Tur	S	S	S	S	S	S	S	S
16.0607992	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0601431	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0601591	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0610508	Birmingham	UK	Cameroon	R	S	S	S	R	S	S	S
16.0618344	Birmingham	UK	EAI	S	S	S	n/a	S	S	S	S
14.0603958	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600834	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0617147	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600072	Birmingham	UK	EAI	S	S	S	S	S	S	U	S
15.0600271	Birmingham	UK	Delhi	R	S	S	S	R	F	S	S
12.0927474	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
16.0607369	Birmingham	UK	lineage4	S	S	S	S	U	S	S	S
13.0606625	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
13.0607323	Birmingham	UK	Uganda	S	S	S	S	S	S	S	S
12.0615645	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0607994	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
15.0607082	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601419	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
13.0613313	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0617570	Birmingham	UK	Delhi	S	S	S	S	S	F	S	S
14.0600890	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607837	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
14.0600822	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
14.0600646	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0608692	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
14.0606710	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
16.0618566	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0600854	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0610479	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607157	Birmingham	UK	Tur	R	S	S	S	R	S	S	S
15.0613496	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0608290	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607011	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0608047	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0613183	Birmingham	UK	X-type	S	n/a	S	S	S	R	S	S
14.0609667	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0605682	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
15.0607921	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0609303	Birmingham	UK	Delhi	S	S	n/a	S	S	S	S	S
16.0607257	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0601461	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
09.0600421	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0605013	Birmingham	UK	West Africar	S	S	S	S	S	U	U	S
13.0605720	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
13.0607499	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
16.0601660	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0607383	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0605385	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600211	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0601329	Birmingham	UK	Delhi	S	S	S	S	S	U	S	S
15.0601933	Birmingham	UK	Delhi	R	R	S	S	R	R	S	S
16.0601171	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607835	Birmingham	UK	Delhi	S	S	S	S	S	F	S	S
13.0613046	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0602904	Birmingham	UK	Beijing	R	R	S	S	R	R	S	F
16.0613084	Birmingham	UK	S-type	S	S	S	n/a	S	S	S	R
16.0607442	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0607804	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600406	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
12.0926048	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
14.0608109	Birmingham	UK	M. bovis	S	S	S	R	S	S	S	R
13.0609268	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600309	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0614506	Birmingham	UK	Beijing	R	S	S	n/a	R	S	R	S

14.0600881	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
13.0610729	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0614500	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
16.0601527	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
12.0608580	Birmingham	UK	Delhi	S	S	S	S	S	U	S	S
16.0607609	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0606604	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0601999	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607165	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0927699	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0607977	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601633	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
13.0607961	Birmingham	UK	LAM	S	S	S	S	S	U	S	S
14.0609960	Birmingham	UK	Beijing	R	S	S	S	R	S	R	S
13.0617294	Birmingham	UK	Delhi	S	S	S	n/a	S	S	S	S
12.0613638	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
12.0612203	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0601794	Birmingham	UK	Uganda	S	S	S	S	S	S	S	S
13.0604896	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
13.0615631	Birmingham	UK	West Africar	S	S	S	S	S	S	U	S
13.0602577	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0615401	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0613309	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0602762	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600565	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600070	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
15.0601441	Birmingham	UK	Haarlem	S	S	S	S	S	S	U	S
15.0607698	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0609132	Birmingham	UK	M. bovis	S	S	S	R	S	S	U	R
14.0600910	Birmingham	UK	M. bovis	S	S	S	R	F	S	U	R
16.0617500	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0610759	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0616171	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0605180	Birmingham	UK	Delhi	S	S	S	S	S	S	S	U
14.0600622	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
16.0601530	Birmingham	UK	West Africar	S	S	S	S	S	U	U	S
15.0601298	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
14.0600129	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
11.0607091	Birmingham	UK	Haarlem	n/a	S	S	S	S	S	S	S
13.0604053	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600534	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
15.0601979	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0618062	Birmingham	UK	Cameroon	S	S	S	S	S	S	U	S
13.0600045	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0614148	Birmingham	UK	lineage4	S	S	S	S	S	S	U	S
16.0617384	Birmingham	UK	LAM	S	S	S	S	S	S	U	S
14.0600401	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0607151	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0601000	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
14.0600167	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0607357	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0600501	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0601716	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0607866	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
10.0609409	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
12.0612519	Birmingham	UK	Delhi	R	S	S	S	R	S	U	S
16.0618433	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0618281	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0601101	Birmingham	UK	Beijing	R	R	R	R	R	R	R	R
12.0614150	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
15.0613478	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
14.0600585	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
13.0609260	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0613579	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0609437	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0616622	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0617139	Birmingham	UK	Delhi	S	S	S	S	S	R	S	S
14.0609470	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600468	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0613203	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
12.0611024	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0600579	Birmingham	UK	Delhi	S	S	S	S	F	S	S	S
12.0614993	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0601360	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
16.0606962	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0608181	Birmingham	UK	Haarlem	S	S	S	S	S	S	U	S
16.0617145	Birmingham	UK	Cameroon	n/a	S	S	S	R	S	S	S
13.0609450	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0613536	Birmingham	UK	Beijing	R	R	R	R	R	R	S	F
14.0609731	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
11.0600002	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
13.0605670	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0605667	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0604518	Birmingham	UK	S-type	S	S	S	S	S	U	S	S
16.0606291	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0611579	Birmingham	UK	lineage4	S	S	S	n/a	S	S	S	S
15.0613463	Birmingham	UK	EAI	S	S	S	n/a	S	S	S	S
14.0616088	Birmingham	UK	EAI	S	S	S	S	S	S	U	S
13.0608099	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607946	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
14.0600481	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600972	Birmingham	UK	Delhi	R	R	R	R	R	R	R	R
15.0601750	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
13.0610477	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0617041	Birmingham	UK	M. bovis	S	S	S	R	S	S	U	R
15.0607640	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601008	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
16.0617611	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
15.0613346	Birmingham	UK	EAI	S	S	S	n/a	S	S	S	S
14.0609622	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0611900	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0601923	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0607333	Birmingham	UK	Tur	S	S	S	S	S	S	S	S
09.0601167	Birmingham	UK	Beijing	S	S	S	S	S	S	S	F
16.0601373	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0614143	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0611813	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609424	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0608332	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
16.0618305	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
11.0611138	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
16.0618273	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0609635	Birmingham	UK	Haarlem	S	S	S	S	R	S	S	S
13.0604524	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0613347	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
14.0600093	Birmingham	UK	Beijing	S	S	S	R	S	S	S	R

15.0607777	Birmingham	UK	Delhi	S	S	S	n/a	S	S	S	R
15.0613131	Birmingham	UK	West Africar	n/a	n/a	n/a	S	S	F	U	S
13.0604881	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
12.0613618	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0610340	Birmingham	UK	Ural	R	R	S	R	R	R	R	U
14.0613032	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0603310	Birmingham	UK	Beijing	R	R	S	S	R	R	S	F
16.0618304	Birmingham	UK	lineage4	S	S	S	S	F	S	S	F
14.0600487	Birmingham	UK	Beijing	R	S	S	S	R	S	S	S
13.0613246	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
13.0603119	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0607738	Birmingham	UK	lineage4	R	R	S	R	R	R	R	R
13.0612469	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0610525	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
13.0605676	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
13.0604904	Birmingham	UK	EAI	S	S	S	S	U	S	S	S
15.0607202	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
13.0613129	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
09.0601854	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
16.0607678	Birmingham	UK		R	R	R	n/a	R	F	R	F
13.0600560	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
16.0618443	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
12.0613640	Birmingham	UK	Cameroon	R	S	S	S	R	S	S	S
16.0610390	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0601572	Birmingham	UK	Delhi	S	S	S	S	U	S	S	S
13.0610753	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
13.0610487	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0617134	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609177	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0610505	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601832	Birmingham	UK	Beijing	R	R	R	S	R	R	R	S
13.0603114	Birmingham	UK	Beijing	R	R	S	R	R	R	R	R
15.0601637	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601497	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600065	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0601709	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0601395	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0613536	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
14.0607822	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0607887	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601891	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601660	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609767	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0607990	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
16.0613240	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0613136	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0614444	Birmingham	UK	Tur	S	S	S	S	S	S	S	S
14.0604921	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
15.0601684	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0618470	Birmingham	UK	Cameroon	S	S	S	S	U	S	S	S
16.0601201	Birmingham	UK	Tur	S	S	S	S	S	S	S	S
11.0606202	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
16.0607953	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0612693	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0609392	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
13.0608466	Birmingham	UK	Delhi	S	S	S	S	U	S	U	S
10.0605284	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
15.0607787	Birmingham	UK	Delhi	S	S	S	S	S	U	S	S
15.0607086	Birmingham	UK	lineage4	n/a	S	S	S	R	S	S	S
14.0609503	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
16.0617460	Birmingham	UK	Haarlem	S	S	S	n/a	S	S	S	S
13.0613215	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0618555	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0607381	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607180	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607020	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
14.0602107	Birmingham	UK	Delhi	S	S	S	S	U	S	S	S
13.0613392	Birmingham	UK	lineage4	R	S	S	S	R	S	S	S
13.0613485	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
15.0606354	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
10.0612331	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601962	Birmingham	UK	Haarlem	S	S	S	S	R	S	S	F
13.0607380	Birmingham	UK	lineage4	R	R	S	n/a	R	R	R	U
11.0600990	Birmingham	UK	lineage4	S	S	S	S	U	S	S	S
16.0605670	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
13.0602845	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
16.0618605	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0604532	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0611318	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0613052	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0601748	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600942	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
13.0610349	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0613254	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0601751	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
13.0613278	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
15.0601906	Birmingham	UK	lineage4	R	S	S	S	R	S	S	S
16.0601752	Birmingham	UK		S	S	S	S	F	F	F	F
12.0615206	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0607480	Birmingham	UK	Haarlem	S	S	S	S	F	S	S	F
14.0602480	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601742	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0610346	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0609466	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
13.0604064	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0605124	Birmingham	UK	EAI	R	n/a	S	S	R	R	U	S
14.0609182	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0607137	Birmingham	UK	EAI	S	S	S	S	F	S	S	S
16.0607813	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0609876	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0607173	Birmingham	UK	Uganda	R	S	S	S	R	S	S	S
12.0601810	Birmingham	UK	EAI	S	S	S	S	R	S	S	S
12.0616935	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0617089	Birmingham	UK	Beijing	R	R	R	n/a	R	R	R	U
17.0601018	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0601687	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0608693	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0601317	Birmingham	UK	lineage4	S	S	S	S	S	F	S	S
14.0600904	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0609462	Birmingham	UK		S	S	S	S	S	S	S	S
12.0617275	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601953	Birmingham	UK	M. bovis	S	S	S	R	S	S	S	R
14.0609776	Birmingham	UK	lineage4	S	S	S	S	U	S	S	S
13.0604567	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0601961	Birmingham	UK	EAI	n/a	n/a	n/a	S	R	S	S	S
14.0609640	Birmingham	UK	Cameroon	S	S	S	S	S	U	S	S

13.0614577	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0601565	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
13.0613385	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609893	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0607228	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0607266	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0608435	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
12.0614865	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
13.0603129	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0607424	Birmingham	UK	Tur	S	S	S	S	S	F	S	S
12.0616801	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
12.0614223	Birmingham	UK	EAI	S	S	S	S	S	U	S	S
15.0601251	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
12.0605156	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
12.0608436	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601292	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
15.0607441	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0618267	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
14.0616145	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
14.0612015	Birmingham	UK	lineage4	S	S	S	S	F	S	S	S
13.0613472	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
16.0601785	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0607158	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
13.0611322	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0602863	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0611433	Birmingham	UK	Beijing	R	R	R	n/a	R	R	R	R
13.0613490	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
16.0618577	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
16.0617189	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0601313	Birmingham	UK	Haarlem	R	S	S	S	R	S	R	S
14.0613749	Birmingham	UK	EAI	S	S	S	S	U	S	S	S
13.0601230	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
15.0601151	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0610327	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
13.0613586	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
16.0601430	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607717	Birmingham	UK	Beijing	S	S	S	S	F	S	S	F
16.0611544	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
12.0607008	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0613509	Birmingham	UK	Delhi	S	S	S	R	S	S	S	R
12.0614091	Birmingham	UK	Tur	S	S	S	S	S	S	S	S
13.0611297	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0605888	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
16.0601667	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607389	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0613466	Birmingham	UK	LAM	S	S	S	S	S	U	U	S
15.0607836	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
11.0614563	Birmingham	UK	West Africar	S	S	S	S	S	S	U	S
13.0607393	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0605714	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0601454	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607568	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609170	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0603087	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
12.0612520	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0613544	Birmingham	UK	Delhi	S	S	S	S	U	S	S	S
13.0604897	Birmingham	UK	EAI	S	S	S	S	S	S	U	S
15.0601228	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
17.0601233	Birmingham	UK	Haarlem	n/a	n/a	n/a	S	S	S	S	S
15.0604955	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
13.0609003	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0617363	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0618282	Birmingham	UK	EAI	S	S	S	S	S	F	S	S
14.0609509	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0600301	Birmingham	UK	Tur	S	S	S	S	S	S	S	S
14.0600068	Birmingham	UK	Uganda	S	S	S	S	S	S	S	S
16.0601666	Birmingham	UK	lineage4	R	R	R	n/a	R	R	R	F
16.0601133	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
16.0605889	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0601963	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
13.0613206	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0601901	Birmingham	UK	Delhi	S	S	S	S	S	F	S	S
13.0603154	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
16.0614420	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0611897	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0618621	Birmingham	UK	Delhi	S	S	S	n/a	S	S	U	S
12.0613195	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601963	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600815	Birmingham	UK	lineage4	R	S	S	S	R	S	S	S
14.0600174	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0600303	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0611291	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0604808	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0613802	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0608644	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
14.0606215	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0607547	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0613111	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
17.0601252	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601231	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
13.0609458	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0605349	Birmingham	UK	EAI	R	n/a	S	S	R	R	U	S
17.0601220	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0611179	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
15.0601910	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
16.0607979	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607117	Birmingham	UK	Delhi	S	S	S	S	S	S	F	S
14.0600708	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0610493	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0616146	Birmingham	UK	Beijing	R	R	R	n/a	R	R	R	R
15.0607243	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0927951	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0607089	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0600736	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
16.0601247	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0613570	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
15.0607969	Birmingham	UK	M. bovis	S	S	S	R	S	S	S	R
14.0609773	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0608174	Birmingham	UK	Delhi	S	S	S	S	S	R	S	S
11.0614843	Birmingham	UK	EAI	S	S	S	n/a	S	S	S	S
14.0600893	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0609957	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0603618	Birmingham	UK	Haarlem	S	S	S	S	S	S	U	S
15.0607522	Birmingham	UK	EAI	S	S	S	S	S	F	S	S
14.0610264	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0615221	Birmingham	UK	EAI	S	S	S	S	F	S	S	S

16.0601750	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0610930	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
15.0607794	Birmingham	UK	Beijing	S	S	S	S	S	R	S	S
15.0613049	Birmingham	UK	Delhi	S	S	S	S	S	U	S	S
14.0612496	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
16.0607380	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
12.0611992	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
16.0607611	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609320	Birmingham	UK	X-type	S	S	S	S	S	S	S	F
15.0601515	Birmingham	UK	EAI	S	S	S	S	U	S	S	S
15.0606997	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600155	Birmingham	UK	Haarlem	S	S	S	S	S	S	U	S
15.0607805	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0604890	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0601189	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0607874	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
15.0602613	Birmingham	UK	Ural	R	S	S	n/a	R	S	S	S
13.0600608	Birmingham	UK	Ural	S	S	S	S	S	S	S	S
12.0615291	Birmingham	UK	Delhi	S	S	S	S	F	S	S	S
12.0610314	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607367	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
17.0600112	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607083	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
16.0605632	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0603151	Birmingham	UK	Delhi	S	S	S	S	F	S	S	S
15.0607438	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0611591	Birmingham	UK	Haarlem	S	S	S	S	S	S	U	S
15.0607503	Birmingham	UK	lineage4	S	S	S	S	S	S	U	S
15.0607074	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607353	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0611790	Birmingham	UK	X-type	S	S	S	S	S	F	S	S
14.0600986	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
16.0607989	Birmingham	UK	Delhi	R	R	S	S	R	R	S	S
16.0601515	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0600255	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
16.0601606	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
13.0612462	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0600572	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0613389	Birmingham	UK	Haarlem	S	S	S	S	S	S	U	S
15.0613333	Birmingham	UK	lineage4	S	S	S	S	S	S	U	S
14.0603754	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0602587	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
15.0610391	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
16.0618387	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607888	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0604513	Birmingham	UK	Tur	S	S	S	S	S	S	S	S
15.0601391	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601418	Birmingham	UK	LAM	n/a	n/a	n/a	S	S	S	S	S
16.0601487	Birmingham	UK	M. bovis	S	S	S	R	S	S	S	R
15.0613462	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601668	Birmingham	UK	Beijing	R	S	R	S	R	S	R	S
13.0615676	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0607991	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0601490	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0601751	Birmingham	UK	EAI	S	S	S	n/a	S	S	S	S
14.0609961	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
14.0600713	Birmingham	UK	lineage4	R	S	S	S	R	S	S	S
14.0609079	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600341	Birmingham	UK	Haarlem	S	S	S	S	S	S	U	S
14.0600980	Birmingham	UK	Beijing	R	R	S	R	R	R	R	R
15.0601178	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0606071	Birmingham	UK	Tur	S	S	S	S	S	S	S	S
09.0600851	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600348	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0601747	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0609148	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
14.0617134	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0615873	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
11.0607519	Birmingham	UK	Delhi	S	S	S	S	U	S	S	S
16.0601077	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0603414	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0618186	Birmingham	UK	Delhi	R	R	S	S	R	R	R	S
15.0614167	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
15.0603042	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
17.0601150	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0607577	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
12.0603488	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0601464	Birmingham	UK	LAM	S	S	S	S	S	S	U	S
15.0601087	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
12.0611245	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0610998	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0609599	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
12.0615222	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0604350	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
15.0601902	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0617333	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
16.0601433	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
16.0606072	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
16.0601738	Birmingham	UK	Ural	R	S	S	S	R	S	S	S
14.0600320	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0610986	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
12.0611854	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
14.0603920	Birmingham	UK	Beijing	R	R	R	S	R	R	R	U
16.0608817	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
16.0601203	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
15.0607721	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
15.0609621	Birmingham	UK	Delhi	S	S	S	S	U	S	S	S
16.0609467	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607021	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
13.0603086	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0605666	Birmingham	UK	West Africar	S	S	S	S	S	S	U	S
13.0604549	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
14.0606539	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0607143	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0615934	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
14.0609500	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0607031	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0611576	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0612178	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0610315	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601806	Birmingham	UK	Delhi	S	S	S	n/a	S	S	S	S
14.0608099	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0613555	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0608342	Birmingham	UK	Beijing	n/a	n/a	S	S	R	R	S	R
13.0613460	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0617188	Birmingham	UK	Delhi	S	S	S	S	U	S	U	S

16.0618611	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607053	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
12.0608996	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0603633	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
13.0609851	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
12.0612506	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
14.0600029	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600698	Birmingham	UK	S-type	S	S	S	S	S	S	U	S
16.0617531	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0618429	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
15.0601367	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0610446	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0600510	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
12.0927854	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0611009	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0611920	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0601914	Birmingham	UK	Haarlem	S	S	S	S	S	S	U	S
12.0927024	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
12.0611788	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0613521	Birmingham	UK	lineage4	S	S	S	S	S	S	U	S
16.0618193	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601070	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0601745	Birmingham	UK	lineage4	R	S	S	S	F	F	F	F
16.0617146	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
13.0609429	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0615561	Birmingham	UK	Delhi	S	S	S	n/a	S	S	S	S
14.0600604	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
10.0607622	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0607700	Birmingham	UK	LAM	S	S	S	S	F	S	S	S
13.0613502	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
11.0601003	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607382	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
13.0616419	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
12.0614543	Birmingham	UK	lineage4	S	S	S	S	S	S	U	S
13.0607977	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0613614	Birmingham	UK	lineage4	S	S	S	S	S	S	U	S
13.0602840	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0607504	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601363	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0613217	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
15.0607497	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601033	Birmingham	UK	LAM	R	S	S	S	R	S	S	U
15.0601889	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0606701	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0603858	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601327	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601974	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609455	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0601980	Birmingham	UK	lineage4	S	S	S	S	S	F	S	S
15.0607326	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
12.0617313	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
15.0601032	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0612555	Birmingham	UK	West Africar	S	S	S	S	S	U	U	S
16.0618624	Birmingham	UK	Delhi	n/a	S	S	n/a	S	S	S	S
15.0607238	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
17.0601226	Birmingham	UK	Delhi	S	S	S	S	S	F	S	S
16.0617291	Birmingham	UK	M. bovis	S	S	S	R	S	S	S	R
15.0609387	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0603097	Birmingham	UK	LAM	S	S	S	S	S	S	S	F
16.0607046	Birmingham	UK	Delhi	n/a	S	n/a	S	R	S	U	S
13.0606213	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
15.0613043	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
15.0607494	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0613336	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
14.0601935	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0605770	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0607519	Birmingham	UK	Beijing	S	S	S	S	S	S	U	S
13.0612115	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0611454	Birmingham	UK	S-type	S	S	S	S	S	S	S	R
13.0610491	Birmingham	UK	Tur	S	S	S	S	S	S	S	S
16.0607017	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600521	Birmingham	UK	Beijing	n/a	n/a	n/a	S	S	S	S	S
14.0600537	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0604342	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0613195	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0609004	Birmingham	UK	lineage4	S	S	S	S	S	S	S	R
16.0603017	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601439	Birmingham	UK	Ghana	R	S	S	S	R	S	S	S
12.0616622	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0616168	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0607865	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
16.0601538	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600807	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
12.0612525	Birmingham	UK	EAI	S	S	S	S	S	S	U	S
14.0614425	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
15.0608520	Birmingham	UK	X-type	S	S	S	n/a	S	S	S	R
11.0602681	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
11.0612547	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
14.0609114	Birmingham	UK	lineage4	S	S	S	S	S	S	U	S
16.0601250	Birmingham	UK	Haarlem	R	S	S	S	R	S	R	S
12.0616631	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
16.0601658	Birmingham	UK	lineage4	S	S	S	S	U	S	S	S
12.0614963	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0609008	Birmingham	UK	lineage4	S	S	S	n/a	S	S	S	S
11.0615660	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601304	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0602532	Birmingham	UK	Haarlem	R	S	S	S	R	S	S	S
14.0600783	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
14.0600803	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
12.0927480	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
14.0612233	Birmingham	UK	EAI	S	S	S	S	S	S	U	S
15.0607106	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0600568	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
12.0616918	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
15.0601824	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0608728	Birmingham	UK	Delhi	n/a	n/a	n/a	S	S	S	S	S
16.0607212	Birmingham	UK	Delhi	S	S	S	S	S	F	F	S
16.0618385	Birmingham	UK	Delhi	S	S	S	n/a	F	F	U	S
12.0613605	Birmingham	UK	West Africar	S	S	S	S	S	U	U	S
14.0600933	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0600918	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
16.0601766	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0607741	Birmingham	UK	lineage4	R	R	S	R	R	R	R	R
12.0610882	Birmingham	UK	X-type	S	S	S	S	U	S	S	S
14.0600597	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607152	Birmingham	UK	Beijing	R	R	n/a	S	R	R	R	S

13.0607717	Birmingham	UK	Haarlem	S	S	S	S	S	S	U	S
16.0601190	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0614204	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0601871	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0602075	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601046	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
14.0600970	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
13.0607959	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0607778	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600566	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600788	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609149	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0604778	Birmingham	UK	Delhi	S	S	S	S	S	R	S	S
15.0601597	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0604889	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607766	Birmingham	UK	M. orygis	S	S	S	S	S	S	S	S
15.0607140	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
17.0601058	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607298	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
16.0601922	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
14.0600259	Birmingham	UK	EAI	S	S	S	S	S	S	U	S
15.0613282	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0606897	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
14.0600802	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
11.0604393	Birmingham	UK	M. bovis	S	S	S	R	S	S	U	R
13.0610746	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0611884	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
15.0601833	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
14.0600692	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
09.0602214	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
15.0607446	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0606481	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
09.0600998	Birmingham	UK	Delhi	S	S	S	S	S	S	U	S
16.0607570	Birmingham	UK	X-type	S	S	S	S	S	S	U	S
14.0606979	Birmingham	UK	Beijing	n/a	n/a	n/a	S	R	F	R	S
16.0611103	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0605713	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0615273	Birmingham	UK	EAI	S	S	S	S	S	S	U	S
13.0600614	Birmingham	UK	LAM	S	S	S	S	S	S	U	S
13.0613605	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601457	Birmingham	UK	EAI	S	S	n/a	S	S	S	S	S
13.0609970	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0615237	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
17.0601028	Birmingham	UK	Delhi	S	S	S	n/a	S	S	S	S
12.0610321	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0609538	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609546	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
11.0614819	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609727	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0604065	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
14.0609402	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
13.0611312	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0601463	Birmingham	UK	X-type	S	S	S	S	S	S	S	S
14.0616130	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
14.0614975	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
12.0613586	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
13.0610905	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600022	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0616019	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
16.0601118	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
09.0600120	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
12.0617129	Birmingham	UK	lineage4	S	S	S	S	S	S	U	S
12.0612858	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0617216	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0611783	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
09.0604962	Birmingham	UK	EAI	R	S	S	S	R	S	S	S
15.0614226	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601694	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0608968	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609027	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
15.0607678	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607388	Birmingham	UK	Delhi	S	S	S	S	F	S	S	S
15.0613052	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0604927	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601967	Birmingham	UK	lineage4	n/a	n/a	n/a	S	S	S	S	S
14.0613979	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0611291	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0607409	Birmingham	UK	Delhi	S	S	S	S	S	U	S	F
13.0612513	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
14.0609903	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0618469	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
13.0603425	Birmingham	UK	EAI	R	S	S	S	R	S	S	S
14.0609854	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
12.0927646	Birmingham	UK	lineage4	R	S	S	S	R	S	S	S
13.0611316	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
15.0607745	Birmingham	UK	LAM	R	R	R	R	R	R	R	U
13.0613458	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0601542	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
15.0613506	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0609498	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
15.0601607	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
15.0601876	Birmingham	UK	Delhi	R	R	S	S	R	R	S	S
15.0615367	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0603276	Birmingham	UK	Beijing	S	S	S	S	S	S	S	S
15.0607254	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600273	Birmingham	UK	EAI	S	S	S	S	S	S	S	S
16.0618329	Birmingham	UK	Ural	S	S	S	S	S	S	S	S
13.0609069	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
10.0605084	Birmingham	UK	EAI	S	S	S	S	U	S	S	S
16.0601224	Birmingham	UK	X-type	R	S	S	S	R	S	S	S
15.0607511	Birmingham	UK	LAM	S	S	S	S	S	S	S	S
10.0611022	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0601556	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0601593	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0600014	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0609976	Birmingham	UK	LAM	S	S	S	S	S	F	S	S
16.0604915	Birmingham	UK	Beijing	R	R	S	n/a	R	R	S	F
11.0611394	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0605101	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
16.0607436	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
13.0606112	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
14.0609261	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
15.0601450	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
14.0609534	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600675	Birmingham	UK	X-type	S	S	S	S	S	S	U	S
16.0618092	Birmingham	UK	Delhi	S	S	S	S	S	F	S	S

16.0618082	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0610489	Birmingham	UK	West Africar	S	S	S	S	S	S	S	U
14.0600801	Birmingham	UK	Beijing	S	S	S	n/a	S	S	S	S
12.0601948	Birmingham	UK	S-type	S	S	S	S	S	S	S	S
16.0607004	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
12.0611810	Birmingham	UK	lineage4	S	S	S	S	S	S	S	S
13.0608467	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
14.0600796	Birmingham	UK	Haarlem	S	S	S	S	S	S	S	S
13.0609467	Birmingham	UK	Delhi	S	S	S	S	U	S	S	S
14.0609526	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
14.0600789	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
13.0607148	Birmingham	UK	Delhi	R	S	S	S	R	S	S	S
11.0610105	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
13.0602613	Birmingham	UK	Cameroon	S	S	S	S	S	S	S	S
16.0605229	Birmingham	UK	Delhi	S	S	S	S	S	S	S	S
7627736	Leeds	UK	Beijing	S	S	S	S	S	S	S	U
7620040	Leeds	UK	Delhi	S	S	S	S	S	S	S	U
7620018	Leeds	UK	LAM	S	S	S	S	S	S	S	U
7627124	Leeds	UK	Delhi	S	S	S	S	S	S	S	U
7627400	Leeds	UK	lineage4	S	S	S	S	S	S	S	U
7626694	Leeds	UK	Delhi	S	S	S	S	S	S	S	F
7626571	Leeds	UK	EAI	S	S	S	S	F	F	S	F
7627900	Leeds	UK	Delhi	S	S	S	S	S	S	S	U
7628147	Leeds	UK	EAI	S	S	S	S	S	F	F	S
7626930	Leeds	UK	Beijing	R	R	R	R	R	R	R	R
7626833	Leeds	UK	Delhi	S	S	S	S	S	S	S	F
7628121	Leeds	UK	Delhi	S	S	S	S	S	S	S	U
7620062	Leeds	UK	X-type	S	S	S	S	S	S	S	U
7628143	Leeds	UK	Haarlem	S	S	S	S	S	S	S	S
7626675	Leeds	UK	Beijing	R	R	R	R	R	R	R	R
7626725	Leeds	UK	Beijing	S	S	S	S	S	S	S	S
7627574	Leeds	UK	Delhi	S	S	S	S	S	S	S	U
7626555	Leeds	UK	Delhi	S	S	S	S	S	S	S	U
7620149	Leeds	UK	Delhi	S	S	S	S	S	S	S	S
7626433	Leeds	UK	lineage4	S	S	S	S	S	F	F	S
7627886	Leeds	UK	Cameroon	S	S	S	S	U	S	U	S
7620009	Leeds	UK	Delhi	S	S	S	S	S	S	S	U
7627572	Leeds	UK	Delhi	S	S	S	S	S	S	S	S
7627226	Leeds	UK	Beijing	R	R	R	R	R	R	R	R
7626487	Leeds	UK	Delhi	S	S	S	S	S	S	S	S
7627636	Leeds	UK	Haarlem	S	S	S	S	S	S	U	F
7627434	Leeds	UK	Delhi	S	S	S	S	U	S	U	S
7626752	Leeds	UK	Delhi	S	S	S	S	S	S	F	S
7626878	Leeds	UK	lineage4	S	S	S	S	S	S	S	S
7627116	Leeds	UK	lineage4	S	S	S	S	S	S	S	U
7626713	Leeds	UK	lineage4	S	S	S	S	S	S	S	S
H124740138	London	UK	Haarlem	R	R	S	S	R	R	R	R
H141600041	London	UK	Beijing	S	S	S	S	S	S	S	S
H112780034	London	UK	Ural	R	R	R	R	R	R	U	S
H101920168	London	UK	Delhi	R	R	n/a	n/a	R	R	R	S
H121260031	London	UK	Ural	R	n/a	S	S	R	R	S	S
H132740033	London	UK	Delhi	R	R	S	S	R	R	F	S
H12500072	London	UK	Delhi	R	R	S	S	R	R	U	S
H133920162	London	UK	Delhi	R	R	n/a	S	R	R	R	S
H142040333	London	UK	Beijing	R	R	R	S	R	R	R	R
H123360011	London	UK	Beijing	R	R	n/a	S	R	R	R	U
H120580018	London	UK	Delhi	R	R	S	S	R	R	R	R
H101620117	London	UK	EAI	R	R	n/a	S	R	R	R	R
H102500147	London	UK	LAM	R	R	n/a	R	R	R	R	R
H135000214	London	UK	EAI	R	R	S	S	R	R	S	U
H103180114	London	UK	Delhi	R	R	S	S	R	R	S	S
H124040080	London	UK	Delhi	R	S	S	S	R	F	S	S
H149800032	London	UK	Haarlem	R	R	n/a	n/a	R	R	R	R
H134640235	London	UK	Tur	R	R	R	R	R	R	R	U
H102780066	London	UK	Cameroon	R	R	S	S	R	R	S	S
H131820987	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H141800023	London	UK	Cameroon	R	R	S	n/a	R	R	S	S
H144680079	London	UK	S-type	R	R	n/a	S	R	R	R	S
H121320026	London	UK	Beijing	S	n/a	S	S	S	S	S	S
H101880206	London	UK	EAI	R	R	n/a	S	R	R	R	R
H112140033	London	UK	Delhi	R	R	n/a	S	R	R	R	S
H131680029	London	UK	Beijing	R	R	n/a	n/a	R	R	R	R
H133140029	London	UK	lineage4	R	R	n/a	S	R	R	R	S
H114780002	London	UK	Ural	R	R	R	S	R	R	U	S
H122480042	London	UK	X-type	R	R	n/a	n/a	R	R	S	R
H110340018	London	UK	Beijing	R	R	n/a	R	R	R	U	R
H133180021	London	UK	Beijing	R	R	n/a	S	R	R	R	S
H115160021	London	UK	EAI	R	R	n/a	n/a	S	R	S	S
H114920015	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H102740017	London	UK	Beijing	R	R	n/a	n/a	R	R	S	S
H124080087	London	UK	Haarlem	R	R	R	R	R	R	R	U
H102540112	London	UK	Beijing	R	R	n/a	R	R	R	U	R
H140820208	London	UK	Delhi	R	S	S	S	F	S	S	F
H105080006	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H112980114	London	UK	LAM	R	R	n/a	S	R	R	U	S
H140640110	London	UK	Beijing	R	R	R	S	R	R	R	U
H105240002	London	UK	Beijing	R	R	n/a	S	R	R	R	R
H114600114	London	UK	Beijing	R	R	R	S	R	R	R	R
H111860011	London	UK	Delhi	R	R	S	S	R	R	S	R
H121040031	London	UK	LAM	R	R	S	R	R	R	R	S
H114440480	London	UK	Beijing	R	R	R	R	R	R	R	R
H140800280	London	UK	Beijing	n/a	R	S	S	R	F	S	S
H122800024	London	UK	EAI	R	R	S	S	R	R	S	R
H140820241	London	UK	Beijing	R	R	R	R	R	R	R	R
H132140021	London	UK	Beijing	R	R	R	R	R	R	R	R
H143080030	London	UK	EAI	R	R	S	S	R	U	S	S
H102080138	London	UK	Delhi	R	R	n/a	n/a	R	R	R	S
H123300022	London	UK	Delhi	R	R	n/a	S	R	R	R	S
H130140043	London	UK	LAM	R	R	R	S	R	R	R	S
H121160050	London	UK	Beijing	R	R	R	S	R	R	U	S
H110580062	London	UK	Delhi	R	n/a	S	S	R	R	S	S
H130660134	London	UK	Beijing	R	R	R	S	R	R	R	R
H111720040	London	UK	Beijing	S	S	S	S	S	S	S	S
H131080024	London	UK	LAM	R	n/a	n/a	R	R	R	R	R
H140640101	London	UK	Beijing	R	R	R	R	R	R	R	U
H142440027	London	UK	Beijing	R	R	R	S	R	R	R	R
H131520071	London	UK	Delhi	R	R	n/a	n/a	R	R	R	S
H114780024	London	UK	Beijing	R	R	R	R	R	R	F	F
H111380011	London	UK	EAI	R	R	n/a	R	R	R	U	R
H121380012	London	UK	EAI	R	R	n/a	n/a	R	R	S	S
H103060020	London	UK	Beijing	R	R	S	S	R	R	U	S
H110560102	London	UK	Beijing	R	R	R	R	R	R	R	R
H120460024	London	UK	Beijing	R	R	n/a	n/a	R	R	R	R
H121640036	London	UK	lineage4	R	R	n/a	S	R	R	R	S
H102060482	London	UK	LAM	R	R	S	S	R	R	R	U
H121340004	London	UK	Delhi	R	R	R	S	R	R	R	S

H103920462	London	UK	lineage4	R	R	S	R	R	R	R
H112600014	London	UK	Ural	R	R	R	S	R	R	R
H143340175	London	UK	Beijing	R	R	R	R	R	R	R
H130280011	London	UK	Beijing	R	R	n/a	S	R	R	U
H111840007	London	UK	Delhi	R	R	S	S	R	R	S
H113540015	London	UK	Delhi	R	R	n/a	n/a	R	R	S
H143740205	London	UK	X-type	n/a	n/a	n/a	S	R	R	R
H111940054	London	UK	Beijing	R	R	S	R	R	R	S
H131000008	London	UK	Delhi	R	R	S	S	R	R	S
H121320033	London	UK	EAI	R	R	R	S	R	R	S
H131560009	London	UK	Delhi	R	R	S	S	R	R	R
H120420019	London	UK	Delhi	R	R	R	S	R	R	R
H144480021	London	UK	Beijing	R	R	R	R	R	R	R
H111560029	London	UK	Beijing	R	R	S	S	R	R	U
H112000008	London	UK	Beijing	R	R	R	R	R	R	R
H120340011	London	UK	Beijing	R	R	R	R	R	R	R
H123200010	London	UK	Beijing	R	R	n/a	S	R	R	R
H142600033	London	UK	Delhi	R	R	S	R	R	R	F
H110540031	London	UK	EAI	n/a	R	R	S	R	R	R
H110800117	London	UK	Beijing	R	R	R	R	R	R	R
H121200024	London	UK	Delhi	S	S	S	S	F	F	U
H134920401	London	UK	X-type	R	R	n/a	R	F	R	F
H102860140	London	UK	Delhi	R	R	S	S	R	R	S
H102880194	London	UK	EAI	R	R	n/a	S	R	R	R
H111560023	London	UK	Cameroon	R	R	S	S	R	R	S
H141780187	London	UK	Beijing	R	R	n/a	S	R	R	U
H123320024	London	UK	Cameroon	R	R	n/a	n/a	R	R	S
H134780024	London	UK	Delhi	R	n/a	S	S	R	R	S
H143160013	London	UK	Beijing	R	R	n/a	S	R	R	R
H112040018	London	UK	Delhi	R	R	n/a	S	R	R	U
H120720148	London	UK	LAM	R	R	n/a	R	R	R	R
H113100007	London	UK	Beijing	R	R	R	R	R	R	R
H130820016	London	UK	Beijing	R	R	n/a	R	R	R	R
H110820014	London	UK	Beijing	R	R	R	S	R	R	R
H103340621	London	UK	Beijing	R	R	R	S	R	R	R
H102960052	London	UK	Beijing	R	R	S	R	R	R	R
H114540002	London	UK	Beijing	R	R	R	R	R	R	R
H111380213	London	UK	Beijing	R	R	n/a	S	R	R	S
H102640088	London	UK	Delhi	R	R	n/a	S	R	R	S
H104480455	London	UK	lineage4	R	R	n/a	S	S	R	S
H111540011	London	UK	Ghana	R	R	n/a	n/a	R	R	S
H142420003	London	UK	Ural	R	R	n/a	R	R	R	U
H112440007	London	UK	Beijing	R	R	n/a	n/a	R	R	R
H131220032	London	UK	Beijing	R	R	n/a	n/a	R	R	R
H143480223	London	UK	Beijing	R	R	R	R	R	R	R
H143620222	London	UK	Delhi	R	R	S	S	U	S	S
H134240034	London	UK	Beijing	R	R	R	S	R	R	S
H140300086	London	UK	LAM	R	R	n/a	S	R	R	S
H122540026	London	UK	Beijing	R	R	n/a	n/a	R	R	S
H121320021	London	UK	Haarlem	R	R	S	S	R	R	S
H143180015	London	UK	Delhi	R	S	S	S	R	S	U
H102580404	London	UK	Beijing	R	R	n/a	S	R	R	S
H105160024	London	UK	Beijing	R	R	n/a	S	R	R	S
H120840306	London	UK	Beijing	R	R	R	S	R	R	S
H134900365	London	UK	EAI	R	n/a	S	S	R	R	S
H132060332	London	UK	Beijing	R	R	n/a	S	R	R	R
H123680040	London	UK	Beijing	R	R	n/a	S	R	R	R
H110560002	London	UK	Beijing	R	R	n/a	R	R	R	R
H122040011	London	UK	Tur	R	R	R	R	R	R	R
H133300021	London	UK	Delhi	S	S	S	S	F	S	F
H130640097	London	UK	EAI	R	R	R	R	R	R	R
H112160033	London	UK	Delhi	R	R	n/a	S	R	R	U
H131680038	London	UK	Beijing	R	R	R	R	R	R	R
H130900010	London	UK	Delhi	S	S	S	S	S	S	F
H123720020	London	UK	Delhi	R	R	n/a	S	R	R	S
H122740073	London	UK	Beijing	R	R	R	R	R	R	R
H145040031	London	UK	Beijing	R	R	n/a	S	R	R	S
H123340049	London	UK	X-type	R	R	n/a	n/a	R	R	S
H123220062	London	UK	Delhi	R	R	S	S	R	R	S
H134280018	London	UK	Delhi	R	R	R	S	R	R	S
H112240073	London	UK	Beijing	R	R	n/a	R	R	R	R
H102240043	London	UK	EAI	R	R	n/a	S	R	R	R
H132480029	London	UK	Beijing	R	R	n/a	R	R	R	R
H102800105	London	UK	Delhi	R	R	n/a	n/a	R	R	R
H150280020	London	UK	Tur	R	R	R	S	R	R	S
H123300023	London	UK	LAM	R	R	n/a	S	R	R	S
H112560226	London	UK	Beijing	R	R	R	S	R	R	R
H142100097	London	UK	Beijing	n/a	R	S	S	R	R	S
H131680035	London	UK	Beijing	R	R	R	S	R	R	R
H120580035	London	UK	Cameroon	S	n/a	S	S	S	S	S
H143100018	London	UK	Delhi	R	R	n/a	R	R	R	R
H104120008	London	UK	Beijing	R	R	R	R	R	R	R
H143780227	London	UK	EAI	R	R	n/a	S	R	U	S
H133240016	London	UK	Beijing	R	R	n/a	R	R	R	R
H113140103	London	UK	Delhi	R	R	n/a	S	R	R	S
H130760079	London	UK	Beijing	R	R	n/a	R	R	R	U
H144880098	London	UK	EAI	R	R	S	S	R	R	S
H122040022	London	UK	Beijing	R	R	n/a	n/a	R	R	S
H113180014	London	UK	Beijing	R	R	R	R	R	R	R
H111620021	London	UK	Beijing	R	R	R	R	R	R	R
H144320050	London	UK	Beijing	R	R	R	S	R	R	S
H102500146	London	UK	LAM	R	R	n/a	R	R	R	R
H123120211	London	UK	LAM	R	R	n/a	S	R	R	S
H144300224	London	UK	Delhi	R	R	S	S	R	R	S
H125180101	London	UK	Tur	R	R	S	S	R	R	U
H112380031	London	UK	Beijing	R	R	n/a	S	R	R	R
H134980271	London	UK	Beijing	R	R	n/a	S	R	R	F
H133160689	London	UK	LAM	R	R	n/a	S	R	R	S
H120660003	London	UK	Delhi	R	R	n/a	R	R	R	R
H112040005	London	UK	Haarlem	R	R	S	S	R	R	S
H113140110	London	UK	Beijing	R	R	R	R	R	R	R
H112580018	London	UK	Beijing	R	R	R	R	R	R	R
H103460397	London	UK	EAI	R	R	S	S	R	R	S
H111520011	London	UK	lineage4	R	R	S	S	R	R	S
H130380158	London	UK	Tur	R	R	S	R	R	R	R
H111960022	London	UK	Delhi	R	R	n/a	n/a	R	R	S
H143240163	London	UK	Beijing	R	R	R	S	R	R	R
H102720013	London	UK	Beijing	R	R	n/a	R	R	R	U
H143140060	London	UK	Delhi	R	R	S	S	U	R	S
H140880224	London	UK	Delhi	R	S	S	S	U	S	S
H114620029	London	UK	Haarlem	R	R	R	n/a	R	R	R
H124820130	London	UK	Beijing	R	R	n/a	n/a	R	R	R
H114980033	London	UK	Beijing	R	R	n/a	n/a	R	R	R
H143480205	London	UK	Delhi	R	R	S	S	R	R	S
H145020032	London	UK	Tur	R	R	R	S	R	R	S
H120160025	London	UK	Delhi	R	R	S	S	R	R	S

H120640698	London	UK	Beijing	R	R	R	R	R	R	R	R
H133300002	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H112580012	London	UK	Delhi	R	R	S	S	R	R	S	R
H102260124	London	UK	EAI	R	R	R	R	R	R	R	R
H111900036	London	UK	Cameroon	S	S	S	S	S	S	S	S
H131020017	London	UK	Delhi	R	R	n/a	S	R	R	R	S
H120840023	London	UK	lineage4	R	R	n/a	S	R	R	R	S
H114840036	London	UK	Delhi	R	R	S	S	R	R	R	R
H114360011	London	UK	LAM	R	R	S	R	R	R	R	S
H101920694	London	UK	Beijing	R	R	R	R	R	R	R	U
H140260305	London	UK	Beijing	R	n/a	n/a	S	R	R	R	U
H114700009	London	UK	Delhi	R	R	S	S	R	R	R	S
H132540044	London	UK	lineage4	R	R	n/a	n/a	R	R	R	U
H104020004	London	UK	lineage4	R	R	R	R	R	R	R	R
H123460050	London	UK	Delhi	R	R	n/a	R	R	R	R	R
H112880076	London	UK	EAI	R	R	S	S	R	R	S	S
H113020004	London	UK	lineage4	R	R	n/a	S	R	R	R	S
H123460044	London	UK	Beijing	R	R	R	S	R	R	R	R
H122020037	London	UK	Tur	R	R	S	S	R	R	S	S
H102640056	London	UK	lineage4	R	R	n/a	S	R	R	R	R
H114400013	London	UK	LAM	R	R	n/a	S	R	R	R	R
H114740004	London	UK	Delhi	R	R	n/a	S	R	R	R	R
H144400047	London	UK	EAI	R	R	S	S	R	R	S	S
H111540004	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H112860025	London	UK	Beijing	R	R	R	S	R	R	R	R
H122860049	London	UK	LAM	R	R	n/a	S	R	R	R	S
H105160152	London	UK	Cameroon	S	S	S	S	S	S	S	S
H131780007	London	UK	Beijing	R	R	S	S	R	R	R	R
H140300080	London	UK	LAM	R	R	n/a	S	R	R	R	S
H144000191	London	UK	LAM	R	R	n/a	R	R	R	U	R
H124160071	London	UK	Delhi	R	R	n/a	S	R	R	R	S
H110200006	London	UK	Beijing	S	n/a	S	S	S	S	S	S
H133020037	London	UK	Cameroon	R	R	n/a	n/a	R	R	S	S
H131320020	London	UK	Beijing	R	R	R	R	R	R	R	R
H110720021	London	UK	Beijing	R	R	R	R	R	R	R	R
H123660058	London	UK	X-type	R	R	n/a	S	R	R	R	R
H122100024	London	UK	Tur	R	R	S	S	R	R	S	S
H132560017	London	UK	Beijing	R	R	R	S	R	R	R	R
H124720152	London	UK	LAM	R	R	R	S	R	R	R	R
H144800311	London	UK	Beijing	R	R	S	R	R	R	R	U
H104480049	London	UK	Beijing	S	S	S	S	S	S	S	S
H130600165	London	UK	lineage4	R	R	n/a	S	R	R	R	S
H104500470	London	UK	Beijing	R	R	R	R	R	R	R	R
H120800010	London	UK	Cameroon	R	R	n/a	S	R	R	R	U
H144720288	London	UK	S-type	R	R	R	S	R	R	R	S
H143120831	London	UK	Delhi	R	R	S	R	R	R	R	R
H141860035	London	UK	Tur	R	R	S	S	R	R	S	S
H130260030	London	UK	Beijing	R	R	R	R	R	R	R	R
H104840010	London	UK	Cameroon	R	R	n/a	S	R	R	R	S
H122660008	London	UK	Haarlem	R	R	R	S	R	R	R	S
H130560193	London	UK	Beijing	R	R	S	S	R	R	R	F
H131450076	London	UK	Beijing	R	R	n/a	R	R	R	R	U
H103540353	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H112980113	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H122280029	London	UK	lineage4	R	R	R	S	R	R	S	U
H112700034	London	UK	Beijing	R	R	R	S	R	R	R	R
H104560351	London	UK	Beijing	R	R	R	R	R	R	R	R
H130380145	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H114920016	London	UK	Beijing	R	R	n/a	S	R	R	R	R
H125180095	London	UK	Cameroon	R	R	R	R	R	R	F	R
H132100029	London	UK	EAI	R	R	n/a	S	R	R	R	S
H133600015	London	UK	Cameroon	R	R	S	S	R	R	S	S
H112760022	London	UK	Delhi	R	R	S	S	R	R	S	S
H101460141	London	UK	Delhi	R	R	n/a	n/a	R	R	R	S
H102040119	London	UK	LAM	R	R	n/a	R	R	R	R	R
H144060098	London	UK	Beijing	R	R	R	S	R	R	R	R
H114240009	London	UK	Cameroon	S	S	S	S	S	S	S	S
H122280030	London	UK	Haarlem	R	R	R	R	R	R	R	U
H112260025	London	UK	Beijing	R	R	R	R	R	R	R	R
H150240214	London	UK	Ural	R	R	n/a	R	R	R	R	R
H134560426	London	UK	Delhi	R	R	n/a	R	R	R	R	R
H131740058	London	UK	EAI	R	R	n/a	S	R	R	R	S
H141220064	London	UK	Beijing	R	R	R	R	R	R	R	R
H133260002	London	UK	Delhi	R	n/a	S	S	R	R	R	S
H115120020	London	UK	Beijing	R	R	R	R	R	R	R	R
H131440121	London	UK	Haarlem	R	R	n/a	n/a	R	R	U	R
H123660062	London	UK	Delhi	R	R	n/a	S	R	R	R	R
H134340142	London	UK	Delhi	R	R	n/a	R	R	R	R	R
H111880072	London	UK	Beijing	R	R	R	S	R	R	R	R
H122780021	London	UK	Beijing	R	R	R	R	R	R	R	R
H143880210	London	UK	Beijing	R	R	n/a	S	R	R	R	R
H122020014	London	UK	Haarlem	R	R	S	S	R	R	S	S
H133700018	London	UK	lineage4	R	R	R	R	R	R	R	R
H134460397	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H111060034	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H130520152	London	UK	Beijing	R	R	R	R	R	R	R	R
H134060565	London	UK	Delhi	R	R	R	S	R	R	R	S
H115180008	London	UK	Beijing	R	R	R	R	R	R	R	R
H142680039	London	UK	Beijing	R	R	R	R	R	R	R	R
H133460009	London	UK	Beijing	R	R	n/a	R	R	R	R	R
H121400003	London	UK	Beijing	R	R	R	R	R	R	R	R
H102060503	London	UK	Delhi	R	R	n/a	S	R	R	R	S
H120320024	London	UK	EAI	R	R	R	R	R	R	R	R
H103380436	London	UK	lineage4	R	R	R	R	R	R	R	R
H141480065	London	UK	Delhi	R	R	n/a	S	R	R	R	R
H101480093	London	UK	Cameroon	R	R	S	S	R	R	S	S
H101320216	London	UK	Beijing	R	R	S	R	R	R	S	S
H142640017	London	UK	Delhi	R	R	R	S	R	R	R	R
H150140251	London	UK	Delhi	R	R	n/a	S	R	R	U	U
H133740011	London	UK	Cameroon	R	R	S	S	R	R	S	S
H121460028	London	UK	Delhi	R	R	S	S	R	R	S	S
H142180021	London	UK	Beijing	R	R	S	S	R	R	S	S
H140120166	London	UK	Cameroon	R	R	S	S	R	R	S	S
H110380009	London	UK	Ural	R	R	S	S	R	R	S	S
H111100025	London	UK	Cameroon	S	S	S	S	S	S	S	S
H130140042	London	UK	EAI	R	R	R	S	R	R	R	S
H132340027	London	UK	Beijing	R	R	S	R	R	R	R	U
H112260020	London	UK	Beijing	R	R	n/a	R	R	R	U	R
H145180186	London	UK	Delhi	R	R	S	S	U	S	S	S
H143340168	London	UK	Beijing	R	R	S	S	R	R	S	R
H141960036	London	UK	Beijing	R	R	S	S	R	R	S	F
H122240093	London	UK	Beijing	R	R	S	S	R	R	S	S
H102800104	London	UK	Beijing	R	R	n/a	S	R	R	R	S
H131140031	London	UK	Delhi	R	R	S	S	R	R	S	S
H150280022	London	UK	LAM	R	R	n/a	S	R	R	U	R
H113760006	London	UK	Delhi	R	R	n/a	R	R	R	R	U

H74998	Oxford	UK	Beijing			S	S	S	S	S	S	S	S
T20779	Oxford	UK	Delhi	SRR6367395	PRJNA393378	S	S	S	S	S	S	S	S
T23882	Oxford	UK	Delhi	SRR6339663	PRJNA393378	S	S	S	S	U	S	S	F

S2

Gene coordinates based on NC_000962.2, with 100 nucleotide positions upstream of each gene read as well.

Mutations characterised as 'S' in Walker *et al* but as 'R' by another source, were characterised as 'R'.

Insertions and deletions characterise in Walker *et al* were re-computed from that data for this study to ensure that the same version of Cortex was used for both data sets. These indels may therefore differ a little from those published in Walker *et al*.

Drug	Mutation	Details of insertion/deletion	Characterisation	Source
Ethambutol	embA_2723_indel	embA_2723_2724_ins_GGG	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A1015T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A1016S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A109T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A201T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A255V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A312V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A331P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A428V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A438V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A460T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A545P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A576T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A586T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A734T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A852S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_A852V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_C-12T		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_C-15G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_C-16G		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_C-16T		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_C-59A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_C-73T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_C335W		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_D1053G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_D176A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_D678N		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_D761G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_D784N		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_D865N		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_E7K		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_E951D		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_G-17A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_G-43C		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_G1085S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_G154S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_G157C		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_G21R		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_G352S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_G596S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_G884D		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_H665R		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_H665Y		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_H673R		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_I191V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_I595V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_K166N		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_K773N		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_L1008P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_L215M		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_L215P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_L233M		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_L263F		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_L263P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_L314P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_L373P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_L659F		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_M697V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_N54S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_P1094S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_P327H		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_P327L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_P35Q		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_P689L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_P75L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_P860L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_P901L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_Q1004P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_Q57E		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_R683L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_S1017A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_S20A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_S20P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_S49R		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_S49T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23

Ethambutol	embC_T941A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC_V218A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC_V303L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC_V337I		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC_V363I		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_-3_indel	ahpC_-3_-2_ins_T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_-34_indel	ahpC_-34_-34_del_A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_-400_indel	ahpC_-400_588+586_del_GGTGGCCAGCCACACCCCGGGTGTTC	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_213_indel	ahpC_213_214_ins_A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_249_indel	ahpC_249_249_del_G	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_A-80G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_A-83G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_A-98C		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_A122T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_A187P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_A195S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_C-52T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_C-57T		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_C-72T		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_C-79T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_C-81T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_D182G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_E160K		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_G-48A		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_G-88A		S (Phylogenetic SN)	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_G45S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_K192N		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_L191F		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_P44R		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_P62H		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_T105M		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_V158F		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC_Y34C		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	ahpC: All synonymous mutations		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_A215T		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_C-15T		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_E7K		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_G-17T		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_G-47C		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_G-77A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_L203L		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_N24S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_P81A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_S126N		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_T-8C		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_T4I		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1: All synonymous mutations other than L203L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_A-14G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_C-40T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_C-67T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_G141R		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_G183R		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_I194T		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_I21T		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_I228V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_S94A		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA: All synonymous mutations		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_1286_indel	katG_1286_1288_del_CGC	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_1339_indel	katG_1339_1350_del_CACGACCTCGTC	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_1365_indel	katG_1365_1365_del_T	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_1804_indel	katG_1804_1810_del_AACCCGT	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_1900_indel	katG_1900_1901_ins_C	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_21_indel	katG_21_22_ins_T	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_371_indel	katG_371_371_del_G	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_A-35G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_A109V		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1_C-15T		R	ReSeqTB systematic review
Isoniazid	katG_A162V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_A16V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_A281T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_A480S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_A532P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_A551S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_A591T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_A606T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_A614E		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_C-79T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_C-85T		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	fabG1: Any nucleotide mutation at positions -16, -15 and -8 in the operator region		S	WHO endorsed line probe assays
Isoniazid	katG_D142G		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_D194N		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23

Isoniazid	katG_D215E	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_D406G	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_D511N	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_E340D	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_E522K	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_E523D	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G-76A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G-89A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G121S	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G123R	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G124A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G124D	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G125D	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G182R	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G237A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G285V	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G297V	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_G534R	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_K433T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_K537E	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_K557N	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_L141F	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_L159P	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_L205R	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_L398R	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_L598R	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_L696Q	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_L704S	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_M257I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_M609T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_N323S	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_N562H	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_P232R	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_P432T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_P510A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_P6S	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_Q295A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_Q36P	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_Q525K	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_Q525S	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_Q88E	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_R104Q	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_R519H	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_S446N	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_S481L	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_S527L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_S700P	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_T-13C	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_T12A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_T180K	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_T308A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_T394A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_T475I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_T625A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_T667I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_T77R	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_V23L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_V260I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_V445I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_V469L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_V473L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_V47I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_V507I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_V633A	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_S315I	R	ReSeqTB systematic review
Isoniazid	katG_S315N	R	ReSeqTB systematic review
Isoniazid	katG_S315T	R	ReSeqTB systematic review
Isoniazid	katG_V68G	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_V739M	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_W191G	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_W191R	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_W300C	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_W328L	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_W505Stop	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_W90R	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG: All synonymous mutations	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_-1526_indel	pncA_-1526_561+4428_del_GCGTTGGGGTGTCTTGACCTGTCGTCR	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_-3_indel	pncA_-3_-2_ins_C	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_-745_indel	pncA_-745_492_del_TGCGCTGGTGGGTTTCGGCGCCACCCATGCCR	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_*187Stop		Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_145_indel	pncA_145_155_del_GACTCCACAT	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23

Pyrazinamide	pncA_185_indel	pncA_185_186_ins_A	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_189_indel	pncA_189_200_del_CTATTCCTCGTC	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_192_indel	pncA_192_193_ins_A	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_231_indel	pncA_231_231_del_C	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_306_indel	pncA_306_309_del_GTAC	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_338_indel	pncA_338_346_del_GCACGCCAC	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_386_indel	pncA_386_389_del_ATGT	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_395_indel	pncA_395_527_del_GTATTGCCACCGATCATTGTGTGCGCCAGACG(S	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_416_indel	pncA_416_416_del_T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_428_indel	pncA_428_429_ins_GCCAGACGGC	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_456_indel	pncA_456_457_ins_C	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_463_indel	pncA_463_464_ins_G	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_47_indel	pncA_47_48_ins_G	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_470_indel	pncA_470_471_ins_A	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_48_indel	pncA_48_74_del_TGGCTCGTGCGGTAACCGGTGGCGC	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_517_indel	pncA_517_518_ins_G	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG: Any amino acid substitution at codon 315		R	WHO endorsed line probe assays
Isoniazid	katG: Any frame shift insertion or deletion		R	ReSeqTB systematic review
Pyrazinamide	pncA_553_indel	pncA_553_561+3_del_AGCTCCTGATGG	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_A102P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_A134D		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_A143V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_A146T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_A79T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_C-19T		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_C138R		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_D129N		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_D136N		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_D53E		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_D63A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_E37V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_F81V		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_G-33A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_G17S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_G78C		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_G97R		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_H137R		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_H82D		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_K48E		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_L159V		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_A-11G		R	ReSeqTB systematic review
Pyrazinamide	pncA_L182S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_L27P		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_A134V		R	ReSeqTB systematic review
Pyrazinamide	pncA_L35R		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_M1I		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_A171E		R	ReSeqTB systematic review
Pyrazinamide	pncA_A3E		R	ReSeqTB systematic review
Pyrazinamide	pncA_A46V		R	ReSeqTB systematic review
Pyrazinamide	pncA_P54Q		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_P69S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_P77L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_C138Y		R	ReSeqTB systematic review
Pyrazinamide	pncA_C14R		R	ReSeqTB systematic review
Pyrazinamide	pncA_C72R		R	ReSeqTB systematic review
Pyrazinamide	pncA_Q10Stop		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_D12A		R	ReSeqTB systematic review
Pyrazinamide	pncA_D12G		R	ReSeqTB systematic review
Pyrazinamide	pncA_D12N		R	ReSeqTB systematic review
Pyrazinamide	pncA_Q141Stop		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_D49G		R	ReSeqTB systematic review
Pyrazinamide	pncA_D49N		R	ReSeqTB systematic review
Pyrazinamide	pncA_R121Q		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_S104G		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_D63G		R	ReSeqTB systematic review
Pyrazinamide	pncA_D8E		R	ReSeqTB systematic review
Pyrazinamide	pncA_D8G		R	ReSeqTB systematic review
Pyrazinamide	pncA_D8N		R	ReSeqTB systematic review
Pyrazinamide	pncA_S18P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_F58L		R	ReSeqTB systematic review
Pyrazinamide	pncA_S32I		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_F94L		R	ReSeqTB systematic review
Pyrazinamide	pncA_F94S		R	ReSeqTB systematic review
Pyrazinamide	pncA_S65P		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_G108R		R	ReSeqTB systematic review
Pyrazinamide	pncA_G132A		R	ReSeqTB systematic review
Pyrazinamide	pncA_G132D		R	ReSeqTB systematic review
Pyrazinamide	pncA_G132S		R	ReSeqTB systematic review
Pyrazinamide	pncA_G162D		R	ReSeqTB systematic review
Pyrazinamide	pncA_G17D		R	ReSeqTB systematic review
Pyrazinamide	pncA_S66L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23

Pyrazinamide	pncA_G24D		R	ReSeqTB systematic review
Pyrazinamide	pncA_T-60G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_G97C		R	ReSeqTB systematic review
Pyrazinamide	pncA_G97D		R	ReSeqTB systematic review
Pyrazinamide	pncA_T114M		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_G97S		R	ReSeqTB systematic review
Pyrazinamide	pncA_H137P		R	ReSeqTB systematic review
Pyrazinamide	pncA_T114P		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_H51Q		R	ReSeqTB systematic review
Pyrazinamide	pncA_H51R		R	ReSeqTB systematic review
Pyrazinamide	pncA_H57D		R	ReSeqTB systematic review
Pyrazinamide	pncA_H57P		R	ReSeqTB systematic review
Pyrazinamide	pncA_H57R		R	ReSeqTB systematic review
Pyrazinamide	pncA_H57Y		R	ReSeqTB systematic review
Pyrazinamide	pncA_H71D		R	ReSeqTB systematic review
Pyrazinamide	pncA_H71Q		R	ReSeqTB systematic review
Pyrazinamide	pncA_H71R		R	ReSeqTB systematic review
Pyrazinamide	pncA_H71Y		R	ReSeqTB systematic review
Pyrazinamide	pncA_T168I		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_H82R		R	ReSeqTB systematic review
Pyrazinamide	pncA_I133T		R	ReSeqTB systematic review
Pyrazinamide	pncA_I6T		R	ReSeqTB systematic review
Pyrazinamide	pncA_T168S		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_K96E		R	ReSeqTB systematic review
Pyrazinamide	pncA_K96N		R	ReSeqTB systematic review
Pyrazinamide	pncA_K96R		R	ReSeqTB systematic review
Pyrazinamide	pncA_K96T		R	ReSeqTB systematic review
Pyrazinamide	pncA_L116P		R	ReSeqTB systematic review
Pyrazinamide	pncA_L116R		R	ReSeqTB systematic review
Pyrazinamide	pncA_L120P		R	ReSeqTB systematic review
Pyrazinamide	pncA_L151S		R	ReSeqTB systematic review
Pyrazinamide	pncA_L159P		R	ReSeqTB systematic review
Pyrazinamide	pncA_T47A		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_L172P		R	ReSeqTB systematic review
Pyrazinamide	pncA_T47I		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_L19P		R	ReSeqTB systematic review
Pyrazinamide	pncA_T87M		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_V163G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_L4S		R	ReSeqTB systematic review
Pyrazinamide	pncA_L85P		R	ReSeqTB systematic review
Pyrazinamide	pncA_L85R		R	ReSeqTB systematic review
Pyrazinamide	pncA_M175I		R	ReSeqTB systematic review
Pyrazinamide	pncA_M175T		R	ReSeqTB systematic review
Pyrazinamide	pncA_M175V		R	ReSeqTB systematic review
Pyrazinamide	pncA_V183L		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_P54L		R	ReSeqTB systematic review
Pyrazinamide	pncA_V21G		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_P54S		R	ReSeqTB systematic review
Pyrazinamide	pncA_P62L		R	ReSeqTB systematic review
Pyrazinamide	pncA_P62Q		R	ReSeqTB systematic review
Pyrazinamide	pncA_V45A		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_V7L		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_Q10P		R	ReSeqTB systematic review
Pyrazinamide	pncA_Q10R		R	ReSeqTB systematic review
Pyrazinamide	pncA_Y64D		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_Q141P		R	ReSeqTB systematic review
Pyrazinamide	pncA_Y99Stop		R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_1278_indel	rpoB_1278_1286_del_CACCAGCCA	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_R123P		R	ReSeqTB systematic review
Rifampicin	rpoB_1292_indel	rpoB_1292_1293_ins_CCA	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_S104R		R	ReSeqTB systematic review
Rifampicin	rpoB_1295_indel	rpoB_1295_1303_del_AATTCATGG	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_1296_indel	rpoB_1296_1297_ins_TTC	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_S59P		R	ReSeqTB systematic review
Rifampicin	rpoB_1299_indel	rpoB_1299_1304_del_CATGGA	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_1328_indel	rpoB_1328_1337_delTGACCCACAAinsGGCCCCA	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_S66P		R	ReSeqTB systematic review
Pyrazinamide	pncA_S67P		R	ReSeqTB systematic review
Pyrazinamide	pncA_T-12C		R	ReSeqTB systematic review
Rifampicin	rpoB_2546_indel	rpoB_2546_2547_ins_CGAGGA	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_T-7C		R	ReSeqTB systematic review
Rifampicin	rpoB_A-53G		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_A334D		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_T135N		R	ReSeqTB systematic review
Pyrazinamide	pncA_T135P		R	ReSeqTB systematic review
Pyrazinamide	pncA_T142A		R	ReSeqTB systematic review
Pyrazinamide	pncA_T142K		R	ReSeqTB systematic review
Pyrazinamide	pncA_T142M		R	ReSeqTB systematic review
Pyrazinamide	pncA_T160P		R	ReSeqTB systematic review
Rifampicin	rpoB_A544V		S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_T168P		R	ReSeqTB systematic review

Rifampicin	rpoB_A69P	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_A857T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_A998V	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_T76P	R	ReSeqTB systematic review
Rifampicin	rpoB_C-62T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_V125F	R	ReSeqTB systematic review
Pyrazinamide	pncA_V125G	R	ReSeqTB systematic review
Pyrazinamide	pncA_V128G	R	ReSeqTB systematic review
Pyrazinamide	pncA_V139A	R	ReSeqTB systematic review
Pyrazinamide	pncA_V139G	R	ReSeqTB systematic review
Pyrazinamide	pncA_V139L	R	ReSeqTB systematic review
Pyrazinamide	pncA_V155G	R	ReSeqTB systematic review
Rifampicin	rpoB_C-73T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_V180F	R	ReSeqTB systematic review
Pyrazinamide	pncA_V180G	R	ReSeqTB systematic review
Rifampicin	rpoB_D270E	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_D362H	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_D3G	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_V7G	R	ReSeqTB systematic review
Rifampicin	rpoB_D515Y	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA_W68C	R	ReSeqTB systematic review
Pyrazinamide	pncA_W68G	R	ReSeqTB systematic review
Pyrazinamide	pncA_W68R	R	ReSeqTB systematic review
Pyrazinamide	pncA_Y103H	R	ReSeqTB systematic review
Pyrazinamide	pncA_Y34D	R	ReSeqTB systematic review
Rifampicin	rpoB_D53N	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_D545A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_D634G	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA: Any frame shift insertion or deletion	R	ReSeqTB systematic review
Rifampicin	rpoB_D851G	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_E1169A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_E132D	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_E563D	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_E639G	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_E639Q	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_E66K	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_E825G	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_G-96A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_G28R	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_G890D	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_G981D	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_H343Q	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_H674Q	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_K944E	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_L314V	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_L316V	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_L443F	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_L80V	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_L893R	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_M121I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_M153T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_M390T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_M434I	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_N24D	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_P30S	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_P358L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_P454L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_P682T	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_P834L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_P89L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_R511L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_R661Q	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_S1124A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_S195R	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_S21F	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_S388L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_T-6C	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_T350I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_T526S	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_T676P	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_V109I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_V1117L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_V1129A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_V113I	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_V170F	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_V179A	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_V359A	R	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_V695L	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_V77M	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_M153T	S (Phylogenetic SN	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB: All synonymous mutations	S	Walker TM et. al., Lancet Infect Dis. 2015 Jun 23

Ethambutol	embA_P913S	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embB: All synonymous mutations	S Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_S49R	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA: All synonymous mutations	S Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_T608N	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC: All synonymous mutations	S Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embA_V206M	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Pyrazinamide	pncA: All synonymous mutations	S Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embB_E378A	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embB_K561R	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embB_Q139H	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embB_S565G	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC_N394D	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC_R567H	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC_R738Q	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC_T270I	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC_V104M	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Ethambutol	embC_V981L	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_P107S	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	inhA_V78A	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Isoniazid	katG_R463L	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB_C-61T	S (Phylogenetic SN Walker TM et. al., Lancet Infect Dis. 2015 Jun 23
Rifampicin	rpoB: Any amino acid substitution or insertion/deletion from codon 425 to codon 45R	WHO endorsed line probe assays / Xpert MTB/RIF
Pyrazinamide	pncA_E37Stop	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_E91Stop	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F106S	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F106Y	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F13I	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F13V	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F13Y	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F50F	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F58I	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F58S	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F81S	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F94C	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_F94F	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G101Stop	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G101E	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G105D	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G105R	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G105V	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G108Stop	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G108E	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G124S	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G132C	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G132R	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G132V	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G150G	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G162A	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G162V	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G16G	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G16R	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G16V	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G17C	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G23V	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G24V	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G55C	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G75V	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G78D	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_G78V	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H137D	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H42N	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H42Q	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H43P	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H43Q	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H51D	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H51L	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H51N	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H51Y	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H57L	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H57N	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H57Q	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H71H	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H71L	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H71N	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_H82L	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_I133F	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_I133N	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_I31F	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_I31N	R Yadon et. al., Nature Communications 2017 Sep 19
Pyrazinamide	pncA_I31T	R Yadon et. al., Nature Communications 2017 Sep 19

Pyrazinamide pncA_E174K
Pyrazinamide pncA_E181Stop
Pyrazinamide pncA_E181K

R Yadon et. al., Nature Communications 2017 Sep 19
R Yadon et. al., Nature Communications 2017 Sep 19
R Yadon et. al., Nature Communications 2017 Sep 19

For each drug (for which the phenotype is marked with an * in the table below, and presented in the order 'isoniazid, rifampicin, ethambutol, pyrazinamide'), against each possible combination of phenotypes among the other three drugs, the negative predictive value was calculated for a prevalence of resistance to the drug in question between 1%-100%. The formula by which the NPV was calculated is: $\text{specificity} \cdot (1 - \text{prevalence}) / (\text{specificity} \cdot (1 - \text{prevalence}) + (1 - \text{sensitivity}) \cdot \text{prevalence})$

<u>-SSS</u>				<u>-RSS</u>				<u>-RRS</u>				<u>-SRS</u>			
Prevalence of isoniazid resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of isoniazid resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of isoniazid resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of isoniazid resistance	Sensitivity	Specificity	Negative Predictive Value
1	92.9	99.6	99.9	1	95.6	92.4	100.0	1	99.3	50.0	100.0	1	85.7	100.0	99.9
2	92.9	99.6	99.9	2	95.6	92.4	99.9	2	99.3	50.0	100.0	2	85.7	100.0	99.7
3	92.9	99.6	99.8	3	95.6	92.4	99.9	3	99.3	50.0	100.0	3	85.7	100.0	99.6
4	92.9	99.6	99.7	4	95.6	92.4	99.8	4	99.3	50.0	99.9	4	85.7	100.0	99.4
5	92.9	99.6	99.6	5	95.6	92.4	99.8	5	99.3	50.0	99.9	5	85.7	100.0	99.3
6	92.9	99.6	99.5	6	95.6	92.4	99.7	6	99.3	50.0	99.9	6	85.7	100.0	99.1
7	92.9	99.6	99.5	7	95.6	92.4	99.6	7	99.3	50.0	99.9	7	85.7	100.0	98.9
8	92.9	99.6	99.4	8	95.6	92.4	99.6	8	99.3	50.0	99.9	8	85.7	100.0	98.8
9	92.9	99.6	99.3	9	95.6	92.4	99.5	9	99.3	50.0	99.9	9	85.7	100.0	98.6
10	92.9	99.6	99.2	10	95.6	92.4	99.5	10	99.3	50.0	99.8	10	85.7	100.0	98.4
11	92.9	99.6	99.1	11	95.6	92.4	99.4	11	99.3	50.0	99.8	11	85.7	100.0	98.3
12	92.9	99.6	99.0	12	95.6	92.4	99.4	12	99.3	50.0	99.8	12	85.7	100.0	98.1
13	92.9	99.6	98.9	13	95.6	92.4	99.3	13	99.3	50.0	99.8	13	85.7	100.0	97.9
14	92.9	99.6	98.8	14	95.6	92.4	99.2	14	99.3	50.0	99.8	14	85.7	100.0	97.7
15	92.9	99.6	98.8	15	95.6	92.4	99.2	15	99.3	50.0	99.8	15	85.7	100.0	97.5
16	92.9	99.6	98.7	16	95.6	92.4	99.1	16	99.3	50.0	99.7	16	85.7	100.0	97.4
17	92.9	99.6	98.6	17	95.6	92.4	99.0	17	99.3	50.0	99.7	17	85.7	100.0	97.2
18	92.9	99.6	98.5	18	95.6	92.4	99.0	18	99.3	50.0	99.7	18	85.7	100.0	97.0
19	92.9	99.6	98.3	19	95.6	92.4	98.9	19	99.3	50.0	99.7	19	85.7	100.0	96.8
20	92.9	99.6	98.2	20	95.6	92.4	98.8	20	99.3	50.0	99.6	20	85.7	100.0	96.6
21	92.9	99.6	98.1	21	95.6	92.4	98.8	21	99.3	50.0	99.6	21	85.7	100.0	96.3
22	92.9	99.6	98.0	22	95.6	92.4	98.7	22	99.3	50.0	99.6	22	85.7	100.0	96.1
23	92.9	99.6	97.9	23	95.6	92.4	98.6	23	99.3	50.0	99.6	23	85.7	100.0	95.9
24	92.9	99.6	97.8	24	95.6	92.4	98.5	24	99.3	50.0	99.6	24	85.7	100.0	95.7
25	92.9	99.6	97.7	25	95.6	92.4	98.4	25	99.3	50.0	99.5	25	85.7	100.0	95.5
26	92.9	99.6	97.5	26	95.6	92.4	98.4	26	99.3	50.0	99.5	26	85.7	100.0	95.2
27	92.9	99.6	97.4	27	95.6	92.4	98.3	27	99.3	50.0	99.5	27	85.7	100.0	95.0
28	92.9	99.6	97.3	28	95.6	92.4	98.2	28	99.3	50.0	99.5	28	85.7	100.0	94.7
29	92.9	99.6	97.2	29	95.6	92.4	98.1	29	99.3	50.0	99.4	29	85.7	100.0	94.5
30	92.9	99.6	97.0	30	95.6	92.4	98.0	30	99.3	50.0	99.4	30	85.7	100.0	94.2
31	92.9	99.6	96.9	31	95.6	92.4	97.9	31	99.3	50.0	99.4	31	85.7	100.0	94.0
32	92.9	99.6	96.7	32	95.6	92.4	97.8	32	99.3	50.0	99.3	32	85.7	100.0	93.7
33	92.9	99.6	96.6	33	95.6	92.4	97.7	33	99.3	50.0	99.3	33	85.7	100.0	93.4
34	92.9	99.6	96.4	34	95.6	92.4	97.6	34	99.3	50.0	99.3	34	85.7	100.0	93.1
35	92.9	99.6	96.3	35	95.6	92.4	97.5	35	99.3	50.0	99.2	35	85.7	100.0	92.9
36	92.9	99.6	96.1	36	95.6	92.4	97.4	36	99.3	50.0	99.2	36	85.7	100.0	92.6
37	92.9	99.6	96.0	37	95.6	92.4	97.3	37	99.3	50.0	99.2	37	85.7	100.0	92.3
38	92.9	99.6	95.8	38	95.6	92.4	97.2	38	99.3	50.0	99.1	38	85.7	100.0	91.9
39	92.9	99.6	95.6	39	95.6	92.4	97.1	39	99.3	50.0	99.1	39	85.7	100.0	91.6
40	92.9	99.6	95.4	40	95.6	92.4	96.9	40	99.3	50.0	99.1	40	85.7	100.0	91.3
41	92.9	99.6	95.3	41	95.6	92.4	96.8	41	99.3	50.0	99.0	41	85.7	100.0	91.0
42	92.9	99.6	95.1	42	95.6	92.4	96.7	42	99.3	50.0	99.0	42	85.7	100.0	90.6
43	92.9	99.6	94.9	43	95.6	92.4	96.6	43	99.3	50.0	99.0	43	85.7	100.0	90.3
44	92.9	99.6	94.7	44	95.6	92.4	96.4	44	99.3	50.0	98.9	44	85.7	100.0	89.9
45	92.9	99.6	94.5	45	95.6	92.4	96.3	45	99.3	50.0	98.9	45	85.7	100.0	89.5
46	92.9	99.6	94.3	46	95.6	92.4	96.1	46	99.3	50.0	98.8	46	85.7	100.0	89.2
47	92.9	99.6	94.0	47	95.6	92.4	96.0	47	99.3	50.0	98.8	47	85.7	100.0	88.8
48	92.9	99.6	93.8	48	95.6	92.4	95.8	48	99.3	50.0	98.7	48	85.7	100.0	88.3
49	92.9	99.6	93.6	49	95.6	92.4	95.6	49	99.3	50.0	98.7	49	85.7	100.0	87.9
50	92.9	99.6	93.3	50	95.6	92.4	95.5	50	99.3	50.0	98.6	50	85.7	100.0	87.5
51	92.9	99.6	93.1	51	95.6	92.4	95.3	51	99.3	50.0	98.6	51	85.7	100.0	87.1
52	92.9	99.6	92.8	52	95.6	92.4	95.1	52	99.3	50.0	98.5	52	85.7	100.0	86.6
53	92.9	99.6	92.5	53	95.6	92.4	94.9	53	99.3	50.0	98.4	53	85.7	100.0	86.1
54	92.9	99.6	92.2	54	95.6	92.4	94.7	54	99.3	50.0	98.4	54	85.7	100.0	85.6
55	92.9	99.6	92.0	55	95.6	92.4	94.5	55	99.3	50.0	98.3	55	85.7	100.0	85.1
56	92.9	99.6	91.7	56	95.6	92.4	94.3	56	99.3	50.0	98.2	56	85.7	100.0	84.6
57	92.9	99.6	91.3	57	95.6	92.4	94.1	57	99.3	50.0	98.2	57	85.7	100.0	84.1
58	92.9	99.6	91.0	58	95.6	92.4	93.9	58	99.3	50.0	98.1	58	85.7	100.0	83.5
59	92.9	99.6	90.7	59	95.6	92.4	93.6	59	99.3	50.0	98.0	59	85.7	100.0	82.9
60	92.9	99.6	90.3	60	95.6	92.4	93.4	60	99.3	50.0	97.9	60	85.7	100.0	82.4
61	92.9	99.6	89.9	61	95.6	92.4	93.1	61	99.3	50.0	97.8	61	85.7	100.0	81.7
62	92.9	99.6	89.5	62	95.6	92.4	92.8	62	99.3	50.0	97.8	62	85.7	100.0	81.1
63	92.9	99.6	89.1	63	95.6	92.4	92.5	63	99.3	50.0	97.7	63	85.7	100.0	80.4
64	92.9	99.6	88.7	64	95.6	92.4	92.2	64	99.3	50.0	97.6	64	85.7	100.0	79.7
65	92.9	99.6	88.3	65	95.6	92.4	91.9	65	99.3	50.0	97.5	65	85.7	100.0	79.0
66	92.9	99.6	87.8	66	95.6	92.4	91.6	66	99.3	50.0	97.3	66	85.7	100.0	78.3
67	92.9	99.6	87.3	67	95.6	92.4	91.2	67	99.3	50.0	97.2	67	85.7	100.0	77.5
68	92.9	99.6	86.8	68	95.6	92.4	90.9	68	99.3	50.0	97.1	68	85.7	100.0	76.7
69	92.9	99.6	86.3	69	95.6	92.4	90.5	69	99.3	50.0	97.0	69	85.7	100.0	75.9
70	92.9	99.6	85.7	70	95.6	92.4	90.1	70	99.3	50.0	96.8	70	85.7	100.0	75.0
71	92.9	99.6	85.1	71	95.6	92.4	89.6	71	99.3	50.0	96.7	71	85.7	100.0	74.1
72	92.9	99.6	84.5	72	95.6	92.4	89.1	72	99.3	50.0	96.5	72	85.7	100.0	73.1
73	92.9	99.6	83.8	73	95.6	92.4	88.7	73	99.3	50.0	96.3	73	85.7	100.0	72.1
74	92.9	99.6	83.1	74	95.6	92.4	88.1	74	99.3	50.0	96.2	74	85.7	100.0	71.1
75	92.9	99.6	82.3	75	95.6	92.4	87.6	75	99.3	50.0	96.0	75	85.7	100.0	70.0
76	92.9	99.6	81.5	76	95.6	92.4	87.0	76	99.3	50.0	95.7	76	85.7	100.0	68.9
77	92.9	99.6	80.7	77	95.6	92.4	86.3	77	99.3	50.0	95.5	77	85.7	100.0	67.6
78	92.9	99.6	79.8	78	95.6	92.4	85.6	78	99.3	50.0	95.3	78	85.7	100.0	66.4
79	92.9	99.6	78.8	79	95.6	92.4	84.9	79	99.3	50.0	95.0	79	85.7	100.0	65.0
80	92.9	99.6	77.7	80	95.6	92.4	84.1	80	99.3	50.0	94.7	80	85.7	100.0	63.6
81	92.9	99.6	76.6	81	95.6	92.4	83.2	81	99.3	50.0	94.3	81	85.7	100.0	62.1
82	92.9	99.6	75.4	82	95.6	92.4	82.3	82	99.3	50.0	94.0	82	85.7	100.0	60.6
83	92.9	99.6	74.1	83	95.6	92.4	81.2	83	99.3	50.0	93.6	83	85.7	100.0	58.9
84	92.9	99.6	72.7	84	95.6	92.4	80.1	84	99.3	50.0	93.1	84	85.7	100.0	5

91	92.9	99.6	58.0	91	95.6	92.4	67.6	91	99.3	50.0	87.6	91	85.7	100.0	40.9
92	92.9	99.6	54.8	92	95.6	92.4	64.7	92	99.3	50.0	86.1	92	85.7	100.0	37.8
93	92.9	99.6	51.3	93	95.6	92.4	61.4	93	99.3	50.0	84.3	93	85.7	100.0	34.5
94	92.9	99.6	47.1	94	95.6	92.4	57.4	94	99.3	50.0	82.0	94	85.7	100.0	30.9
95	92.9	99.6	42.4	95	95.6	92.4	52.6	95	99.3	50.0	78.9	95	85.7	100.0	26.9
96	92.9	99.6	36.8	96	95.6	92.4	46.8	96	99.3	50.0	74.8	96	85.7	100.0	22.6
97	92.9	99.6	30.2	97	95.6	92.4	39.5	97	99.3	50.0	68.8	97	85.7	100.0	17.8
98	92.9	99.6	22.2	98	95.6	92.4	30.1	98	99.3	50.0	59.2	98	85.7	100.0	12.5
99	92.9	99.6	12.4	99	95.6	92.4	17.6	99	99.3	50.0	41.8	99	85.7	100.0	6.6
100	92.9	99.6	0.0	100	95.6	92.4	0.0	100	99.3	50.0	0.0	100	85.7	100.0	0.0

-SSR				-RRR				-RSR				-SRR			
Prevalence of isoniazid resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of isoniazid resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of isoniazid resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of isoniazid resistance	Sensitivity	Specificity	Negative Predictive Value
1	96.0	100.0	100.0	1	99.5 n/a	n/a	n/a	1	98.6	100.0	100.0	1	100.0 n/a	n/a	n/a
2	96.0	100.0	99.9	2	99.5 n/a	n/a	n/a	2	98.6	100.0	100.0	2	100.0 n/a	n/a	n/a
3	96.0	100.0	99.9	3	99.5 n/a	n/a	n/a	3	98.6	100.0	100.0	3	100.0 n/a	n/a	n/a
4	96.0	100.0	99.8	4	99.5 n/a	n/a	n/a	4	98.6	100.0	99.9	4	100.0 n/a	n/a	n/a
5	96.0	100.0	99.8	5	99.5 n/a	n/a	n/a	5	98.6	100.0	99.9	5	100.0 n/a	n/a	n/a
6	96.0	100.0	99.7	6	99.5 n/a	n/a	n/a	6	98.6	100.0	99.9	6	100.0 n/a	n/a	n/a
7	96.0	100.0	99.7	7	99.5 n/a	n/a	n/a	7	98.6	100.0	99.9	7	100.0 n/a	n/a	n/a
8	96.0	100.0	99.7	8	99.5 n/a	n/a	n/a	8	98.6	100.0	99.9	8	100.0 n/a	n/a	n/a
9	96.0	100.0	99.6	9	99.5 n/a	n/a	n/a	9	98.6	100.0	99.9	9	100.0 n/a	n/a	n/a
10	96.0	100.0	99.6	10	99.5 n/a	n/a	n/a	10	98.6	100.0	99.8	10	100.0 n/a	n/a	n/a
11	96.0	100.0	99.5	11	99.5 n/a	n/a	n/a	11	98.6	100.0	99.8	11	100.0 n/a	n/a	n/a
12	96.0	100.0	99.5	12	99.5 n/a	n/a	n/a	12	98.6	100.0	99.8	12	100.0 n/a	n/a	n/a
13	96.0	100.0	99.4	13	99.5 n/a	n/a	n/a	13	98.6	100.0	99.8	13	100.0 n/a	n/a	n/a
14	96.0	100.0	99.4	14	99.5 n/a	n/a	n/a	14	98.6	100.0	99.8	14	100.0 n/a	n/a	n/a
15	96.0	100.0	99.3	15	99.5 n/a	n/a	n/a	15	98.6	100.0	99.8	15	100.0 n/a	n/a	n/a
16	96.0	100.0	99.2	16	99.5 n/a	n/a	n/a	16	98.6	100.0	99.7	16	100.0 n/a	n/a	n/a
17	96.0	100.0	99.2	17	99.5 n/a	n/a	n/a	17	98.6	100.0	99.7	17	100.0 n/a	n/a	n/a
18	96.0	100.0	99.1	18	99.5 n/a	n/a	n/a	18	98.6	100.0	99.7	18	100.0 n/a	n/a	n/a
19	96.0	100.0	99.1	19	99.5 n/a	n/a	n/a	19	98.6	100.0	99.7	19	100.0 n/a	n/a	n/a
20	96.0	100.0	99.0	20	99.5 n/a	n/a	n/a	20	98.6	100.0	99.6	20	100.0 n/a	n/a	n/a
21	96.0	100.0	98.9	21	99.5 n/a	n/a	n/a	21	98.6	100.0	99.6	21	100.0 n/a	n/a	n/a
22	96.0	100.0	98.9	22	99.5 n/a	n/a	n/a	22	98.6	100.0	99.6	22	100.0 n/a	n/a	n/a
23	96.0	100.0	98.8	23	99.5 n/a	n/a	n/a	23	98.6	100.0	99.6	23	100.0 n/a	n/a	n/a
24	96.0	100.0	98.8	24	99.5 n/a	n/a	n/a	24	98.6	100.0	99.6	24	100.0 n/a	n/a	n/a
25	96.0	100.0	98.7	25	99.5 n/a	n/a	n/a	25	98.6	100.0	99.5	25	100.0 n/a	n/a	n/a
26	96.0	100.0	98.6	26	99.5 n/a	n/a	n/a	26	98.6	100.0	99.5	26	100.0 n/a	n/a	n/a
27	96.0	100.0	98.5	27	99.5 n/a	n/a	n/a	27	98.6	100.0	99.5	27	100.0 n/a	n/a	n/a
28	96.0	100.0	98.5	28	99.5 n/a	n/a	n/a	28	98.6	100.0	99.5	28	100.0 n/a	n/a	n/a
29	96.0	100.0	98.4	29	99.5 n/a	n/a	n/a	29	98.6	100.0	99.4	29	100.0 n/a	n/a	n/a
30	96.0	100.0	98.3	30	99.5 n/a	n/a	n/a	30	98.6	100.0	99.4	30	100.0 n/a	n/a	n/a
31	96.0	100.0	98.2	31	99.5 n/a	n/a	n/a	31	98.6	100.0	99.4	31	100.0 n/a	n/a	n/a
32	96.0	100.0	98.2	32	99.5 n/a	n/a	n/a	32	98.6	100.0	99.4	32	100.0 n/a	n/a	n/a
33	96.0	100.0	98.1	33	99.5 n/a	n/a	n/a	33	98.6	100.0	99.3	33	100.0 n/a	n/a	n/a
34	96.0	100.0	98.0	34	99.5 n/a	n/a	n/a	34	98.6	100.0	99.3	34	100.0 n/a	n/a	n/a
35	96.0	100.0	97.9	35	99.5 n/a	n/a	n/a	35	98.6	100.0	99.3	35	100.0 n/a	n/a	n/a
36	96.0	100.0	97.8	36	99.5 n/a	n/a	n/a	36	98.6	100.0	99.2	36	100.0 n/a	n/a	n/a
37	96.0	100.0	97.7	37	99.5 n/a	n/a	n/a	37	98.6	100.0	99.2	37	100.0 n/a	n/a	n/a
38	96.0	100.0	97.6	38	99.5 n/a	n/a	n/a	38	98.6	100.0	99.2	38	100.0 n/a	n/a	n/a
39	96.0	100.0	97.5	39	99.5 n/a	n/a	n/a	39	98.6	100.0	99.1	39	100.0 n/a	n/a	n/a
40	96.0	100.0	97.4	40	99.5 n/a	n/a	n/a	40	98.6	100.0	99.1	40	100.0 n/a	n/a	n/a
41	96.0	100.0	97.3	41	99.5 n/a	n/a	n/a	41	98.6	100.0	99.1	41	100.0 n/a	n/a	n/a
42	96.0	100.0	97.2	42	99.5 n/a	n/a	n/a	42	98.6	100.0	99.0	42	100.0 n/a	n/a	n/a
43	96.0	100.0	97.1	43	99.5 n/a	n/a	n/a	43	98.6	100.0	99.0	43	100.0 n/a	n/a	n/a
44	96.0	100.0	97.0	44	99.5 n/a	n/a	n/a	44	98.6	100.0	98.9	44	100.0 n/a	n/a	n/a
45	96.0	100.0	96.8	45	99.5 n/a	n/a	n/a	45	98.6	100.0	98.9	45	100.0 n/a	n/a	n/a
46	96.0	100.0	96.7	46	99.5 n/a	n/a	n/a	46	98.6	100.0	98.9	46	100.0 n/a	n/a	n/a
47	96.0	100.0	96.6	47	99.5 n/a	n/a	n/a	47	98.6	100.0	98.8	47	100.0 n/a	n/a	n/a
48	96.0	100.0	96.4	48	99.5 n/a	n/a	n/a	48	98.6	100.0	98.8	48	100.0 n/a	n/a	n/a
49	96.0	100.0	96.3	49	99.5 n/a	n/a	n/a	49	98.6	100.0	98.7	49	100.0 n/a	n/a	n/a
50	96.0	100.0	96.2	50	99.5 n/a	n/a	n/a	50	98.6	100.0	98.7	50	100.0 n/a	n/a	n/a
51	96.0	100.0	96.0	51	99.5 n/a	n/a	n/a	51	98.6	100.0	98.6	51	100.0 n/a	n/a	n/a
52	96.0	100.0	95.8	52	99.5 n/a	n/a	n/a	52	98.6	100.0	98.5	52	100.0 n/a	n/a	n/a
53	96.0	100.0	95.7	53	99.5 n/a	n/a	n/a	53	98.6	100.0	98.5	53	100.0 n/a	n/a	n/a
54	96.0	100.0	95.5	54	99.5 n/a	n/a	n/a	54	98.6	100.0	98.4	54	100.0 n/a	n/a	n/a
55	96.0	100.0	95.3	55	99.5 n/a	n/a	n/a	55	98.6	100.0	98.4	55	100.0 n/a	n/a	n/a
56	96.0	100.0	95.2	56	99.5 n/a	n/a	n/a	56	98.6	100.0	98.3	56	100.0 n/a	n/a	n/a
57	96.0	100.0	95.0	57	99.5 n/a	n/a	n/a	57	98.6	100.0	98.2	57	100.0 n/a	n/a	n/a
58	96.0	100.0	94.8	58	99.5 n/a	n/a	n/a	58	98.6	100.0	98.2	58	100.0 n/a	n/a	n/a
59	96.0	100.0	94.6	59	99.5 n/a	n/a	n/a	59	98.6	100.0	98.1	59	100.0 n/a	n/a	n/a
60	96.0	100.0	94.3	60	99.5 n/a	n/a	n/a	60	98.6	100.0	98.0	60	100.0 n/a	n/a	n/a
61	96.0	100.0	94.1	61	99.5 n/a	n/a	n/a	61	98.6	100.0	97.9	61	100.0 n/a	n/a	n/a
62	96.0	100.0	93.9	62	99.5 n/a	n/a	n/a	62	98.6	100.0	97.8	62	100.0 n/a	n/a	n/a
63	96.0	100.0	93.6	63	99.5 n/a	n/a	n/a	63	98.6	100.0	97.7	63	100.0 n/a	n/a	n/a
64	96.0	100.0	93.4	64	99.5 n/a	n/a	n/a	64	98.6	100.0	97.6	64	100.0 n/a	n/a	n/a
65	96.0	100.0	93.1	65	99.5 n/a	n/a	n/a	65	98.6	100.0	97.5	65	100.0 n/a	n/a	n/a
66	96.0	100.0	92.8	66	99.5 n/a	n/a	n/a	66	98.6	100.0	97.4	66	100.0 n/a	n/a	n/a
67	96.0	100.0	92.5	67	99.5 n/a	n/a	n/a	67	98.6	100.0	97.3	67	100.0 n/a	n/a	n/a
68	96.0	100.0	92.2	68	99.5 n/a	n/a	n/a	68	98.6	100.0	97.2	68	100.0 n/a	n/a	n/a
69	96.0	100.0	91.8	69	99.5 n/a	n/a	n/a	69	98.6	100.0	97.1	69	100.0 n/a	n/a	n/a
70	96.0	100.0	91.5	70	99.5 n/a	n/a	n/a	70	98.6	100.0	96.9	70	100.0 n/a	n/a	n/a
71	96.0	100.0	91.1	71	99.5 n/a	n/a	n/a	71	98.6	100.0	96.8	71	100.0 n/a	n/a	n/a
72	96.0	100.0	90.7	72	99.5 n/a	n/a	n/a	72	98.6	100.0	96.6	72	100.0 n/a	n/a	n/a
73	96.0	100.0	90.2	73	99.5 n/a	n/a	n/a	73	98.6	100.0	96.4	73	100.0 n/a	n/a	n/a
74	96.0	100.0	89.8	74	99.5 n/a	n/a	n/a	74	98.6	100.0	96.3	74	100.0 n/a	n/a	n/a
75	96.0	100.0	89.3	75	99.5 n/a	n/a	n/a	75	98.6	100.0	96.1	75	100.0 n/a	n/a	n/a
76	96.0	100.0	88.8	76	99.5 n/a	n/a	n/a	76	98.6	100.0	95.9	76	100.0 n/a	n/a	n/a
77	96.0	100.0	88.2	77	99.5 n/a	n/a	n/a	77	98.6	100.0	95.6	77	100.0 n/a	n/a	n/a
78	96.0	100.0	87.6	78	99.5 n/a	n/a	n/a	78	98.6	100.0	95.4	78	100.0 n/a	n/a	n/a
79	96.0	100.0	86.9	79	99.5 n/a	n/a	n								

83	96.0	100.0	83.7	83	99.5 n/a	n/a	83	98.6	100.0	93.8	83	100.0 n/a	n/a
84	96.0	100.0	82.6	84	99.5 n/a	n/a	84	98.6	100.0	93.3	84	100.0 n/a	n/a
85	96.0	100.0	81.5	85	99.5 n/a	n/a	85	98.6	100.0	92.8	85	100.0 n/a	n/a
86	96.0	100.0	80.3	86	99.5 n/a	n/a	86	98.6	100.0	92.3	86	100.0 n/a	n/a
87	96.0	100.0	78.9	87	99.5 n/a	n/a	87	98.6	100.0	91.6	87	100.0 n/a	n/a
88	96.0	100.0	77.3	88	99.5 n/a	n/a	88	98.6	100.0	90.9	88	100.0 n/a	n/a
89	96.0	100.0	75.5	89	99.5 n/a	n/a	89	98.6	100.0	90.1	89	100.0 n/a	n/a
90	96.0	100.0	73.5	90	99.5 n/a	n/a	90	98.6	100.0	89.1	90	100.0 n/a	n/a
91	96.0	100.0	71.2	91	99.5 n/a	n/a	91	98.6	100.0	87.9	91	100.0 n/a	n/a
92	96.0	100.0	68.5	92	99.5 n/a	n/a	92	98.6	100.0	86.4	92	100.0 n/a	n/a
93	96.0	100.0	65.3	93	99.5 n/a	n/a	93	98.6	100.0	84.7	93	100.0 n/a	n/a
94	96.0	100.0	61.5	94	99.5 n/a	n/a	94	98.6	100.0	82.4	94	100.0 n/a	n/a
95	96.0	100.0	56.8	95	99.5 n/a	n/a	95	98.6	100.0	79.4	95	100.0 n/a	n/a
96	96.0	100.0	51.0	96	99.5 n/a	n/a	96	98.6	100.0	75.3	96	100.0 n/a	n/a
97	96.0	100.0	43.6	97	99.5 n/a	n/a	97	98.6	100.0	69.4	97	100.0 n/a	n/a
98	96.0	100.0	33.8	98	99.5 n/a	n/a	98	98.6	100.0	59.9	98	100.0 n/a	n/a
99	96.0	100.0	20.2	99	99.5 n/a	n/a	99	98.6	100.0	42.6	99	100.0 n/a	n/a
100	96.0	100.0	0.0	100	99.5 n/a	n/a	100	98.6	100.0	0.0	100	100.0 n/a	n/a

<u>S-SS</u>				<u>S-RS</u>				<u>S-SR</u>				<u>S-RR</u>			
Prevalence of rifampicin resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of rifampicin resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of rifampicin resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of rifampicin resistance	Sensitivity	Specificity	Negative Predictive Value
1	82.2	99.4	99.8	1	100.0	90.0	100.0	1	33.3	100.0	99.3	1	n/a	n/a	n/a
2	82.2	99.4	99.6	2	100.0	90.0	100.0	2	33.3	100.0	98.7	2	n/a	n/a	n/a
3	82.2	99.4	99.4	3	100.0	90.0	100.0	3	33.3	100.0	98.0	3	n/a	n/a	n/a
4	82.2	99.4	99.3	4	100.0	90.0	100.0	4	33.3	100.0	97.3	4	n/a	n/a	n/a
5	82.2	99.4	99.1	5	100.0	90.0	100.0	5	33.3	100.0	96.6	5	n/a	n/a	n/a
6	82.2	99.4	98.9	6	100.0	90.0	100.0	6	33.3	100.0	95.9	6	n/a	n/a	n/a
7	82.2	99.4	98.7	7	100.0	90.0	100.0	7	33.3	100.0	95.2	7	n/a	n/a	n/a
8	82.2	99.4	98.5	8	100.0	90.0	100.0	8	33.3	100.0	94.5	8	n/a	n/a	n/a
9	82.2	99.4	98.3	9	100.0	90.0	100.0	9	33.3	100.0	93.8	9	n/a	n/a	n/a
10	82.2	99.4	98.1	10	100.0	90.0	100.0	10	33.3	100.0	93.1	10	n/a	n/a	n/a
11	82.2	99.4	97.8	11	100.0	90.0	100.0	11	33.3	100.0	92.4	11	n/a	n/a	n/a
12	82.2	99.4	97.6	12	100.0	90.0	100.0	12	33.3	100.0	91.7	12	n/a	n/a	n/a
13	82.2	99.4	97.4	13	100.0	90.0	100.0	13	33.3	100.0	90.9	13	n/a	n/a	n/a
14	82.2	99.4	97.2	14	100.0	90.0	100.0	14	33.3	100.0	90.2	14	n/a	n/a	n/a
15	82.2	99.4	96.9	15	100.0	90.0	100.0	15	33.3	100.0	89.5	15	n/a	n/a	n/a
16	82.2	99.4	96.7	16	100.0	90.0	100.0	16	33.3	100.0	88.7	16	n/a	n/a	n/a
17	82.2	99.4	96.5	17	100.0	90.0	100.0	17	33.3	100.0	88.0	17	n/a	n/a	n/a
18	82.2	99.4	96.2	18	100.0	90.0	100.0	18	33.3	100.0	87.2	18	n/a	n/a	n/a
19	82.2	99.4	96.0	19	100.0	90.0	100.0	19	33.3	100.0	86.5	19	n/a	n/a	n/a
20	82.2	99.4	95.7	20	100.0	90.0	100.0	20	33.3	100.0	85.7	20	n/a	n/a	n/a
21	82.2	99.4	95.5	21	100.0	90.0	100.0	21	33.3	100.0	84.9	21	n/a	n/a	n/a
22	82.2	99.4	95.2	22	100.0	90.0	100.0	22	33.3	100.0	84.2	22	n/a	n/a	n/a
23	82.2	99.4	94.9	23	100.0	90.0	100.0	23	33.3	100.0	83.4	23	n/a	n/a	n/a
24	82.2	99.4	94.7	24	100.0	90.0	100.0	24	33.3	100.0	82.6	24	n/a	n/a	n/a
25	82.2	99.4	94.4	25	100.0	90.0	100.0	25	33.3	100.0	81.8	25	n/a	n/a	n/a
26	82.2	99.4	94.1	26	100.0	90.0	100.0	26	33.3	100.0	81.0	26	n/a	n/a	n/a
27	82.2	99.4	93.8	27	100.0	90.0	100.0	27	33.3	100.0	80.2	27	n/a	n/a	n/a
28	82.2	99.4	93.5	28	100.0	90.0	100.0	28	33.3	100.0	79.4	28	n/a	n/a	n/a
29	82.2	99.4	93.2	29	100.0	90.0	100.0	29	33.3	100.0	78.6	29	n/a	n/a	n/a
30	82.2	99.4	92.9	30	100.0	90.0	100.0	30	33.3	100.0	77.8	30	n/a	n/a	n/a
31	82.2	99.4	92.6	31	100.0	90.0	100.0	31	33.3	100.0	77.0	31	n/a	n/a	n/a
32	82.2	99.4	92.2	32	100.0	90.0	100.0	32	33.3	100.0	76.1	32	n/a	n/a	n/a
33	82.2	99.4	91.9	33	100.0	90.0	100.0	33	33.3	100.0	75.3	33	n/a	n/a	n/a
34	82.2	99.4	91.6	34	100.0	90.0	100.0	34	33.3	100.0	74.4	34	n/a	n/a	n/a
35	82.2	99.4	91.2	35	100.0	90.0	100.0	35	33.3	100.0	73.6	35	n/a	n/a	n/a
36	82.2	99.4	90.9	36	100.0	90.0	100.0	36	33.3	100.0	72.7	36	n/a	n/a	n/a
37	82.2	99.4	90.5	37	100.0	90.0	100.0	37	33.3	100.0	71.9	37	n/a	n/a	n/a
38	82.2	99.4	90.1	38	100.0	90.0	100.0	38	33.3	100.0	71.0	38	n/a	n/a	n/a
39	82.2	99.4	89.7	39	100.0	90.0	100.0	39	33.3	100.0	70.1	39	n/a	n/a	n/a
40	82.2	99.4	89.3	40	100.0	90.0	100.0	40	33.3	100.0	69.2	40	n/a	n/a	n/a
41	82.2	99.4	88.9	41	100.0	90.0	100.0	41	33.3	100.0	68.3	41	n/a	n/a	n/a
42	82.2	99.4	88.5	42	100.0	90.0	100.0	42	33.3	100.0	67.4	42	n/a	n/a	n/a
43	82.2	99.4	88.1	43	100.0	90.0	100.0	43	33.3	100.0	66.5	43	n/a	n/a	n/a
44	82.2	99.4	87.7	44	100.0	90.0	100.0	44	33.3	100.0	65.6	44	n/a	n/a	n/a
45	82.2	99.4	87.2	45	100.0	90.0	100.0	45	33.3	100.0	64.7	45	n/a	n/a	n/a
46	82.2	99.4	86.8	46	100.0	90.0	100.0	46	33.3	100.0	63.8	46	n/a	n/a	n/a
47	82.2	99.4	86.3	47	100.0	90.0	100.0	47	33.3	100.0	62.8	47	n/a	n/a	n/a
48	82.2	99.4	85.8	48	100.0	90.0	100.0	48	33.3	100.0	61.9	48	n/a	n/a	n/a
49	82.2	99.4	85.3	49	100.0	90.0	100.0	49	33.3	100.0	61.0	49	n/a	n/a	n/a
50	82.2	99.4	84.8	50	100.0	90.0	100.0	50	33.3	100.0	60.0	50	n/a	n/a	n/a
51	82.2	99.4	84.3	51	100.0	90.0	100.0	51	33.3	100.0	59.0	51	n/a	n/a	n/a
52	82.2	99.4	83.8	52	100.0	90.0	100.0	52	33.3	100.0	58.1	52	n/a	n/a	n/a
53	82.2	99.4	83.2	53	100.0	90.0	100.0	53	33.3	100.0	57.1	53	n/a	n/a	n/a
54	82.2	99.4	82.6	54	100.0	90.0	100.0	54	33.3	100.0	56.1	54	n/a	n/a	n/a
55	82.2	99.4	82.1	55	100.0	90.0	100.0	55	33.3	100.0	55.1	55	n/a	n/a	n/a
56	82.2	99.4	81.5	56	100.0	90.0	100.0	56	33.3	100.0	54.1	56	n/a	n/a	n/a
57	82.2	99.4	80.8	57	100.0	90.0	100.0	57	33.3	100.0	53.1	57	n/a	n/a	n/a
58	82.2	99.4	80.2	58	100.0	90.0	100.0	58	33.3	100.0	52.1	58	n/a	n/a	n/a
59	82.2	99.4	79.5	59	100.0	90.0	100.0	59	33.3	100.0	51.0	59	n/a	n/a	n/a
60	82.2	99.4	78.8	60	100.0	90.0	100.0	60	33.3	100.0	50.0	60	n/a	n/a	n/a
61	82.2	99.4	78.1	61	100.0	90.0	100.0	61	33.3	100.0	49.0	61	n/a	n/a	n/a
62	82.2	99.4	77.4	62	100.0	90.0	100.0	62	33.3	100.0	47.9	62	n/a	n/a	n/a
63	82.2	99.4	76.6	63	100.0	90.0	100.0	63	33.3	100.0	46.8	63	n/a	n/a	n/a
64	82.2	99.4	75.9	64	100.0	90.0	100.0	64	33.3	100.0	45.8	64	n/a	n/a	n/a
65	82.2	99.4	75.1	65	100.0	90.0	100.0	65	33.3	100.0	44.7	65	n/a	n/a	n/a
66	82.2	99.4	74.2	66	100.0	90.0	100.0	66	33.3	100.0	43.6	66	n/a	n/a	n/a
67	82.2	99.4	73.4	67	100.0	90.0	100.0	67	33.3	100.0	42.5	67	n/a	n/a	n/a
68	82.2	99.4	72.5	68	100.0	90.0	100.0	68	33.3	100.0	41.4	68	n/a	n/a	n/a
69	82.2	99.4	71.5	69	100.0	90.0	100.0	69	33.3	100.0	40.3	69	n/a	n/a	n/a
70	82.2	99.4	70.5	70	100.0	90.0	100.0	70	33.3	100.0	39.1	70	n/a	n/a	n/a
71	82.2	99.4	69.5	71	100.0	90.0	100.0	71	33.3	100.0	38.0	71	n/a	n/a	n/a
72	82.2	99.4	68.5	72	100.0	90.0	100.0	72	33.3	100.0	36.8	72	n/a	n/a	n/a
73	82.2	99.4	67.4	73	100.0	90.0	100.0	73	33.3	100.0	35.7	73	n/a	n/a	n/a

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74	82.2	99.4	66.3	74	100.0	90.0	100.0	74	33.3	100.0	34.5	74	n/a	n/a	n/a
75	82.2	99.4	65.1	75	100.0	90.0	100.0	75	33.3	100.0	33.3	75	n/a	n/a	n/a
76	82.2	99.4	63.8	76	100.0	90.0	100.0	76	33.3	100.0	32.1	76	n/a	n/a	n/a
77	82.2	99.4	62.5	77	100.0	90.0	100.0	77	33.3	100.0	30.9	77	n/a	n/a	n/a
78	82.2	99.4	61.2	78	100.0	90.0	100.0	78	33.3	100.0	29.7	78	n/a	n/a	n/a
79	82.2	99.4	59.8	79	100.0	90.0	100.0	79	33.3	100.0	28.5	79	n/a	n/a	n/a
80	82.2	99.4	58.3	80	100.0	90.0	100.0	80	33.3	100.0	27.3	80	n/a	n/a	n/a
81	82.2	99.4	56.7	81	100.0	90.0	100.0	81	33.3	100.0	26.0	81	n/a	n/a	n/a
82	82.2	99.4	55.1	82	100.0	90.0	100.0	82	33.3	100.0	24.8	82	n/a	n/a	n/a
83	82.2	99.4	53.4	83	100.0	90.0	100.0	83	33.3	100.0	23.5	83	n/a	n/a	n/a
84	82.2	99.4	51.6	84	100.0	90.0	100.0	84	33.3	100.0	22.2	84	n/a	n/a	n/a
85	82.2	99.4	49.7	85	100.0	90.0	100.0	85	33.3	100.0	20.9	85	n/a	n/a	n/a
86	82.2	99.4	47.6	86	100.0	90.0	100.0	86	33.3	100.0	19.6	86	n/a	n/a	n/a
87	82.2	99.4	45.5	87	100.0	90.0	100.0	87	33.3	100.0	18.3	87	n/a	n/a	n/a
88	82.2	99.4	43.2	88	100.0	90.0	100.0	88	33.3	100.0	17.0	88	n/a	n/a	n/a
89	82.2	99.4	40.9	89	100.0	90.0	100.0	89	33.3	100.0	15.6	89	n/a	n/a	n/a
90	82.2	99.4	38.3	90	100.0	90.0	100.0	90	33.3	100.0	14.3	90	n/a	n/a	n/a
91	82.2	99.4	35.6	91	100.0	90.0	100.0	91	33.3	100.0	12.9	91	n/a	n/a	n/a
92	82.2	99.4	32.7	92	100.0	90.0	100.0	92	33.3	100.0	11.5	92	n/a	n/a	n/a
93	82.2	99.4	29.6	93	100.0	90.0	100.0	93	33.3	100.0	10.1	93	n/a	n/a	n/a
94	82.2	99.4	26.3	94	100.0	90.0	100.0	94	33.3	100.0	8.7	94	n/a	n/a	n/a
95	82.2	99.4	22.7	95	100.0	90.0	100.0	95	33.3	100.0	7.3	95	n/a	n/a	n/a
96	82.2	99.4	18.9	96	100.0	90.0	100.0	96	33.3	100.0	5.9	96	n/a	n/a	n/a
97	82.2	99.4	14.7	97	100.0	90.0	100.0	97	33.3	100.0	4.4	97	n/a	n/a	n/a
98	82.2	99.4	10.2	98	100.0	90.0	100.0	98	33.3	100.0	3.0	98	n/a	n/a	n/a
99	82.2	99.4	5.3	99	100.0	90.0	100.0	99	33.3	100.0	1.5	99	n/a	n/a	n/a
100	82.2	99.4	0.0	100	100.0	90.0	#DIV/0!	100	33.3	100.0	0.0	100	n/a	n/a	n/a

Prevalence of rifampicin resistance	<u>R-SS</u>			Prevalence of rifampicin resistance	<u>R-RS</u>			Prevalence of rifampicin resistance	<u>R-SR</u>			Prevalence of rifampicin resistance	<u>R-RR</u>		
	Sensitivity	Specificity	Negative Predictive Value		Sensitivity	Specificity	Negative Predictive Value		Sensitivity	Specificity	Negative Predictive Value		Sensitivity	Specificity	Negative Predictive Value
1	95.9	95.9	100.0	1	98.4	86.2	100.0	1	98.2	74.1	100.0	1	99.7	23.1	100.0
2	95.9	95.9	99.9	2	98.4	86.2	100.0	2	98.2	74.1	100.0	2	99.7	23.1	100.0
3	95.9	95.9	99.9	3	98.4	86.2	99.9	3	98.2	74.1	99.9	3	99.7	23.1	100.0
4	95.9	95.9	99.8	4	98.4	86.2	99.9	4	98.2	74.1	99.9	4	99.7	23.1	99.9
5	95.9	95.9	99.8	5	98.4	86.2	99.9	5	98.2	74.1	99.9	5	99.7	23.1	99.9
6	95.9	95.9	99.7	6	98.4	86.2	99.9	6	98.2	74.1	99.8	6	99.7	23.1	99.9
7	95.9	95.9	99.7	7	98.4	86.2	99.9	7	98.2	74.1	99.8	7	99.7	23.1	99.9
8	95.9	95.9	99.6	8	98.4	86.2	99.8	8	98.2	74.1	99.8	8	99.7	23.1	99.9
9	95.9	95.9	99.6	9	98.4	86.2	99.8	9	98.2	74.1	99.8	9	99.7	23.1	99.9
10	95.9	95.9	99.5	10	98.4	86.2	99.8	10	98.2	74.1	99.7	10	99.7	23.1	99.9
11	95.9	95.9	99.5	11	98.4	86.2	99.8	11	98.2	74.1	99.7	11	99.7	23.1	99.8
12	95.9	95.9	99.4	12	98.4	86.2	99.7	12	98.2	74.1	99.7	12	99.7	23.1	99.8
13	95.9	95.9	99.4	13	98.4	86.2	99.7	13	98.2	74.1	99.6	13	99.7	23.1	99.8
14	95.9	95.9	99.3	14	98.4	86.2	99.7	14	98.2	74.1	99.6	14	99.7	23.1	99.8
15	95.9	95.9	99.2	15	98.4	86.2	99.7	15	98.2	74.1	99.6	15	99.7	23.1	99.8
16	95.9	95.9	99.2	16	98.4	86.2	99.6	16	98.2	74.1	99.5	16	99.7	23.1	99.8
17	95.9	95.9	99.1	17	98.4	86.2	99.6	17	98.2	74.1	99.5	17	99.7	23.1	99.7
18	95.9	95.9	99.1	18	98.4	86.2	99.6	18	98.2	74.1	99.5	18	99.7	23.1	99.7
19	95.9	95.9	99.0	19	98.4	86.2	99.6	19	98.2	74.1	99.4	19	99.7	23.1	99.7
20	95.9	95.9	98.9	20	98.4	86.2	99.5	20	98.2	74.1	99.4	20	99.7	23.1	99.7
21	95.9	95.9	98.9	21	98.4	86.2	99.5	21	98.2	74.1	99.4	21	99.7	23.1	99.7
22	95.9	95.9	98.8	22	98.4	86.2	99.5	22	98.2	74.1	99.3	22	99.7	23.1	99.6
23	95.9	95.9	98.7	23	98.4	86.2	99.4	23	98.2	74.1	99.3	23	99.7	23.1	99.6
24	95.9	95.9	98.7	24	98.4	86.2	99.4	24	98.2	74.1	99.2	24	99.7	23.1	99.6
25	95.9	95.9	98.6	25	98.4	86.2	99.4	25	98.2	74.1	99.2	25	99.7	23.1	99.6
26	95.9	95.9	98.5	26	98.4	86.2	99.3	26	98.2	74.1	99.2	26	99.7	23.1	99.5
27	95.9	95.9	98.4	27	98.4	86.2	99.3	27	98.2	74.1	99.1	27	99.7	23.1	99.5
28	95.9	95.9	98.4	28	98.4	86.2	99.3	28	98.2	74.1	99.1	28	99.7	23.1	99.5
29	95.9	95.9	98.3	29	98.4	86.2	99.2	29	98.2	74.1	99.0	29	99.7	23.1	99.5
30	95.9	95.9	98.2	30	98.4	86.2	99.2	30	98.2	74.1	99.0	30	99.7	23.1	99.4
31	95.9	95.9	98.1	31	98.4	86.2	99.2	31	98.2	74.1	98.9	31	99.7	23.1	99.4
32	95.9	95.9	98.0	32	98.4	86.2	99.1	32	98.2	74.1	98.9	32	99.7	23.1	99.4
33	95.9	95.9	97.9	33	98.4	86.2	99.1	33	98.2	74.1	98.8	33	99.7	23.1	99.4
34	95.9	95.9	97.8	34	98.4	86.2	99.0	34	98.2	74.1	98.8	34	99.7	23.1	99.3
35	95.9	95.9	97.7	35	98.4	86.2	99.0	35	98.2	74.1	98.7	35	99.7	23.1	99.3
36	95.9	95.9	97.6	36	98.4	86.2	99.0	36	98.2	74.1	98.7	36	99.7	23.1	99.3
37	95.9	95.9	97.5	37	98.4	86.2	98.9	37	98.2	74.1	98.6	37	99.7	23.1	99.2
38	95.9	95.9	97.4	38	98.4	86.2	98.9	38	98.2	74.1	98.5	38	99.7	23.1	99.2
39	95.9	95.9	97.3	39	98.4	86.2	98.8	39	98.2	74.1	98.5	39	99.7	23.1	99.2
40	95.9	95.9	97.2	40	98.4	86.2	98.8	40	98.2	74.1	98.4	40	99.7	23.1	99.1
41	95.9	95.9	97.1	41	98.4	86.2	98.7	41	98.2	74.1	98.3	41	99.7	23.1	99.1
42	95.9	95.9	97.0	42	98.4	86.2	98.7	42	98.2	74.1	98.3	42	99.7	23.1	99.1
43	95.9	95.9	96.9	43	98.4	86.2	98.6	43	98.2	74.1	98.2	43	99.7	23.1	99.0
44	95.9	95.9	96.7	44	98.4	86.2	98.5	44	98.2	74.1	98.1	44	99.7	23.1	99.0
45	95.9	95.9	96.6	45	98.4	86.2	98.5	45	98.2	74.1	98.0	45	99.7	23.1	98.9
46	95.9	95.9	96.5	46	98.4	86.2	98.4	46	98.2	74.1	98.0	46	99.7	23.1	98.9
47	95.9	95.9	96.3	47	98.4	86.2	98.4	47	98.2	74.1	97.9	47	99.7	23.1	98.9
48	95.9	95.9	96.2	48	98.4	86.2	98.3	48	98.2	74.1	97.8	48	99.7	23.1	98.8
49	95.9	95.9	96.0	49	98.4	86.2	98.2	49	98.2	74.1	97.7	49	99.7	23.1	98.8
50	95.9	95.9	95.9	50	98.4	86.2	98.2	50	98.2	74.1	97.6	50	99.7	23.1	98.7
51	95.9	95.9	95.7	51	98.4	86.2	98.1	51	98.2	74.1	97.5	51	99.7	23.1	98.7
52	95.9	95.9	95.5	52	98.4	86.2	98.0	52	98.2	74.1	97.4	52	99.7	23.1	98.6
53	95.9	95.9	95.4	53	98.4	86.2	97.9	53	98.2	74.1	97.3	53	99.7	23.1	98.6
54	95.9	95.9	95.2	54	98.4	86.2	97.8	54	98.2	74.1	97.2	54	99.7	23.1	98.5
55	95.9	95.9	95.0	55	98.4	86.2	97.7	55	98.2	74.1	97.1	55	99.7	23.1	98.4
56	95.9	95.9	94.8	56	98.4	86.2	97.7	56	98.2	74.1	97.0	56	99.7	23.1	98.4
57	95.9	95.9	94.6	57	98.4	86.2	97.6	57	98.2	74.1	96.9	57	99.7	23.1	98.3
58	95.9	95.9	94.4	58	98.4	86.2	97.5	58	98.2	74.1	96.8	58	99.7	23.1	98.2
59	95.9	95.9	94.2	59	98.4	86.2	97.4	59	98.2	74.1	96.6	59	99.7	23.1	98.2
60	95.9	95.9	93.9	60	98.4	86.2	97.3	60	98.2	74.1	96.5	60	99.7		

65	95.9	95.9	92.6	65	98.4	86.2	96.6	65	98.2	74.1	95.7	65	99.7	23.1	97.6
66	95.9	95.9	92.3	66	98.4	86.2	96.5	66	98.2	74.1	95.5	66	99.7	23.1	97.5
67	95.9	95.9	92.0	67	98.4	86.2	96.3	67	98.2	74.1	95.3	67	99.7	23.1	97.4
68	95.9	95.9	91.6	68	98.4	86.2	96.2	68	98.2	74.1	95.1	68	99.7	23.1	97.3
69	95.9	95.9	91.3	69	98.4	86.2	96.0	69	98.2	74.1	94.9	69	99.7	23.1	97.2
70	95.9	95.9	90.9	70	98.4	86.2	95.8	70	98.2	74.1	94.6	70	99.7	23.1	97.1
71	95.9	95.9	90.5	71	98.4	86.2	95.6	71	98.2	74.1	94.4	71	99.7	23.1	96.9
72	95.9	95.9	90.0	72	98.4	86.2	95.4	72	98.2	74.1	94.1	72	99.7	23.1	96.8
73	95.9	95.9	89.6	73	98.4	86.2	95.2	73	98.2	74.1	93.8	73	99.7	23.1	96.6
74	95.9	95.9	89.1	74	98.4	86.2	94.9	74	98.2	74.1	93.5	74	99.7	23.1	96.4
75	95.9	95.9	88.6	75	98.4	86.2	94.7	75	98.2	74.1	93.2	75	99.7	23.1	96.2
76	95.9	95.9	88.0	76	98.4	86.2	94.4	76	98.2	74.1	92.8	76	99.7	23.1	96.0
77	95.9	95.9	87.4	77	98.4	86.2	94.1	77	98.2	74.1	92.5	77	99.7	23.1	95.8
78	95.9	95.9	86.8	78	98.4	86.2	93.7	78	98.2	74.1	92.1	78	99.7	23.1	95.6
79	95.9	95.9	86.1	79	98.4	86.2	93.4	79	98.2	74.1	91.6	79	99.7	23.1	95.3
80	95.9	95.9	85.3	80	98.4	86.2	93.0	80	98.2	74.1	91.1	80	99.7	23.1	95.1
81	95.9	95.9	84.5	81	98.4	86.2	92.6	81	98.2	74.1	90.6	81	99.7	23.1	94.8
82	95.9	95.9	83.6	82	98.4	86.2	92.1	82	98.2	74.1	90.0	82	99.7	23.1	94.4
83	95.9	95.9	82.6	83	98.4	86.2	91.6	83	98.2	74.1	89.4	83	99.7	23.1	94.0
84	95.9	95.9	81.6	84	98.4	86.2	91.0	84	98.2	74.1	88.7	84	99.7	23.1	93.6
85	95.9	95.9	80.4	85	98.4	86.2	90.4	85	98.2	74.1	87.9	85	99.7	23.1	93.1
86	95.9	95.9	79.1	86	98.4	86.2	89.6	86	98.2	74.1	87.0	86	99.7	23.1	92.6
87	95.9	95.9	77.6	87	98.4	86.2	88.8	87	98.2	74.1	86.0	87	99.7	23.1	92.0
88	95.9	95.9	76.0	88	98.4	86.2	87.9	88	98.2	74.1	84.9	88	99.7	23.1	91.3
89	95.9	95.9	74.2	89	98.4	86.2	86.8	89	98.2	74.1	83.6	89	99.7	23.1	90.5
90	95.9	95.9	72.1	90	98.4	86.2	85.5	90	98.2	74.1	82.0	90	99.7	23.1	89.5
91	95.9	95.9	69.7	91	98.4	86.2	84.0	91	98.2	74.1	80.3	91	99.7	23.1	88.4
92	95.9	95.9	66.9	92	98.4	86.2	82.2	92	98.2	74.1	78.1	92	99.7	23.1	87.0
93	95.9	95.9	63.6	93	98.4	86.2	80.0	93	98.2	74.1	75.6	93	99.7	23.1	85.3
94	95.9	95.9	59.7	94	98.4	86.2	77.2	94	98.2	74.1	72.4	94	99.7	23.1	83.1
95	95.9	95.9	55.0	95	98.4	86.2	73.6	95	98.2	74.1	68.4	95	99.7	23.1	80.2
96	95.9	95.9	49.2	96	98.4	86.2	68.9	96	98.2	74.1	63.1	96	99.7	23.1	76.2
97	95.9	95.9	41.8	97	98.4	86.2	62.1	97	98.2	74.1	56.0	97	99.7	23.1	70.4
98	95.9	95.9	32.1	98	98.4	86.2	52.0	98	98.2	74.1	45.6	98	99.7	23.1	61.1
99	95.9	95.9	19.0	99	98.4	86.2	34.9	99	98.2	74.1	29.3	99	99.7	23.1	43.7
100	95.9	95.9	0.0	100	98.4	86.2	0.0	100	98.2	74.1	0.0	100	99.7	23.1	0.0

<u>SS-S</u>				<u>RS-S</u>				<u>SR-S</u>				<u>RR-S</u>			
Prevalence of ethambutol resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of ethambutol resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of ethambutol resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of ethambutol resistance	Sensitivity	Specificity	Negative Predictive Value
1	10.0	99.9	99.1	1	80.8	92.4	99.8	1	66.7	98.9	99.7	1	94.9	54.3	99.9
2	10.0	99.9	98.2	2	80.8	92.4	99.6	2	66.7	98.9	99.3	2	94.9	54.3	99.8
3	10.0	99.9	97.3	3	80.8	92.4	99.4	3	66.7	98.9	99.0	3	94.9	54.3	99.7
4	10.0	99.9	96.4	4	80.8	92.4	99.1	4	66.7	98.9	98.6	4	94.9	54.3	99.6
5	10.0	99.9	95.5	5	80.8	92.4	98.9	5	66.7	98.9	98.3	5	94.9	54.3	99.5
6	10.0	99.9	94.6	6	80.8	92.4	98.7	6	66.7	98.9	97.9	6	94.9	54.3	99.4
7	10.0	99.9	93.7	7	80.8	92.4	98.5	7	66.7	98.9	97.5	7	94.9	54.3	99.3
8	10.0	99.9	92.7	8	80.8	92.4	98.2	8	66.7	98.9	97.2	8	94.9	54.3	99.2
9	10.0	99.9	91.8	9	80.8	92.4	98.0	9	66.7	98.9	96.8	9	94.9	54.3	99.1
10	10.0	99.9	90.9	10	80.8	92.4	97.7	10	66.7	98.9	96.4	10	94.9	54.3	99.0
11	10.0	99.9	90.0	11	80.8	92.4	97.5	11	66.7	98.9	96.0	11	94.9	54.3	98.9
12	10.0	99.9	89.1	12	80.8	92.4	97.2	12	66.7	98.9	95.6	12	94.9	54.3	98.7
13	10.0	99.9	88.1	13	80.8	92.4	97.0	13	66.7	98.9	95.2	13	94.9	54.3	98.6
14	10.0	99.9	87.2	14	80.8	92.4	96.7	14	66.7	98.9	94.8	14	94.9	54.3	98.5
15	10.0	99.9	86.3	15	80.8	92.4	96.5	15	66.7	98.9	94.4	15	94.9	54.3	98.4
16	10.0	99.9	85.4	16	80.8	92.4	96.2	16	66.7	98.9	94.0	16	94.9	54.3	98.3
17	10.0	99.9	84.4	17	80.8	92.4	95.9	17	66.7	98.9	93.5	17	94.9	54.3	98.1
18	10.0	99.9	83.5	18	80.8	92.4	95.6	18	66.7	98.9	93.1	18	94.9	54.3	98.0
19	10.0	99.9	82.6	19	80.8	92.4	95.3	19	66.7	98.9	92.7	19	94.9	54.3	97.9
20	10.0	99.9	81.6	20	80.8	92.4	95.1	20	66.7	98.9	92.2	20	94.9	54.3	97.7
21	10.0	99.9	80.7	21	80.8	92.4	94.8	21	66.7	98.9	91.8	21	94.9	54.3	97.6
22	10.0	99.9	79.7	22	80.8	92.4	94.5	22	66.7	98.9	91.3	22	94.9	54.3	97.4
23	10.0	99.9	78.8	23	80.8	92.4	94.1	23	66.7	98.9	90.9	23	94.9	54.3	97.3
24	10.0	99.9	77.9	24	80.8	92.4	93.8	24	66.7	98.9	90.4	24	94.9	54.3	97.1
25	10.0	99.9	76.9	25	80.8	92.4	93.5	25	66.7	98.9	89.9	25	94.9	54.3	97.0
26	10.0	99.9	76.0	26	80.8	92.4	93.2	26	66.7	98.9	89.4	26	94.9	54.3	96.8
27	10.0	99.9	75.0	27	80.8	92.4	92.9	27	66.7	98.9	88.9	27	94.9	54.3	96.7
28	10.0	99.9	74.1	28	80.8	92.4	92.5	28	66.7	98.9	88.4	28	94.9	54.3	96.5
29	10.0	99.9	73.1	29	80.8	92.4	92.2	29	66.7	98.9	87.9	29	94.9	54.3	96.3
30	10.0	99.9	72.1	30	80.8	92.4	91.8	30	66.7	98.9	87.4	30	94.9	54.3	96.2
31	10.0	99.9	71.2	31	80.8	92.4	91.4	31	66.7	98.9	86.9	31	94.9	54.3	96.0
32	10.0	99.9	70.2	32	80.8	92.4	91.1	32	66.7	98.9	86.3	32	94.9	54.3	95.8
33	10.0	99.9	69.3	33	80.8	92.4	90.7	33	66.7	98.9	85.8	33	94.9	54.3	95.6
34	10.0	99.9	68.3	34	80.8	92.4	90.3	34	66.7	98.9	85.2	34	94.9	54.3	95.4
35	10.0	99.9	67.3	35	80.8	92.4	89.9	35	66.7	98.9	84.6	35	94.9	54.3	95.2
36	10.0	99.9	66.4	36	80.8	92.4	89.5	36	66.7	98.9	84.1	36	94.9	54.3	95.0
37	10.0	99.9	65.4	37	80.8	92.4	89.1	37	66.7	98.9	83.5	37	94.9	54.3	94.8
38	10.0	99.9	64.4	38	80.8	92.4	88.7	38	66.7	98.9	82.9	38	94.9	54.3	94.6
39	10.0	99.9	63.5	39	80.8	92.4	88.3	39	66.7	98.9	82.3	39	94.9	54.3	94.4
40	10.0	99.9	62.5	40	80.8	92.4	87.8	40	66.7	98.9	81.7	40	94.9	54.3	94.1
41	10.0	99.9	61.5	41	80.8	92.4	87.4	41	66.7	98.9	81.0	41	94.9	54.3	93.9
42	10.0	99.9	60.5	42	80.8	92.4	86.9	42	66.7	98.9	80.4	42	94.9	54.3	93.7
43	10.0	99.9	59.5	43	80.8	92.4	86.4	43	66.7	98.9	79.7	43	94.9	54.3	93.4
44	10.0	99.9	58.6	44	80.8	92.4	85.9	44	66.7	98.9	79.1	44	94.9	54.3	93.2
45	10.0	99.9	57.6	45	80.8	92.4	85.4	45	66.7	98.9	78.4	45	94.9	54.3	92.9
46	10.0	99.9	56.6	46	80.8	92.4	84.9	46	66.7	98.9	77.7	46	94.9	54.3	92.6
47	10.0	99.9	55.6	47	80.8	92.4	84.4	47	66.7	98.9	77.0	47	94.9	54.3	92.4
48	10.0	99.9	54.6	48	80.8	92.4	83.9	48	66.7	98.9	76.3	48	94.9	54.3	92.1
49	10.0	99.9	53.6	49	80.8	92.4	83.3	49	66.7	98.9	75.5	49	94.9	54.3	91.8
50	10.0	99.9	52.6	50	80.8	92.4	82.8	50	66.7	98.9	74.8	50			

56	10.0	99.9	46.6	56	80.8	92.4	79.1	56	66.7	98.9	70.0	56	94.9	54.3	89.4
57	10.0	99.9	45.6	57	80.8	92.4	78.4	57	66.7	98.9	69.1	57	94.9	54.3	89.0
58	10.0	99.9	44.6	58	80.8	92.4	77.7	58	66.7	98.9	68.2	58	94.9	54.3	88.6
59	10.0	99.9	43.5	59	80.8	92.4	76.9	59	66.7	98.9	67.3	59	94.9	54.3	88.2
60	10.0	99.9	42.5	60	80.8	92.4	76.2	60	66.7	98.9	66.4	60	94.9	54.3	87.7
61	10.0	99.9	41.5	61	80.8	92.4	75.4	61	66.7	98.9	65.5	61	94.9	54.3	87.3
62	10.0	99.9	40.5	62	80.8	92.4	74.6	62	66.7	98.9	64.5	62	94.9	54.3	86.8
63	10.0	99.9	39.5	63	80.8	92.4	73.8	63	66.7	98.9	63.5	63	94.9	54.3	86.3
64	10.0	99.9	38.4	64	80.8	92.4	73.0	64	66.7	98.9	62.5	64	94.9	54.3	85.8
65	10.0	99.9	37.4	65	80.8	92.4	72.1	65	66.7	98.9	61.5	65	94.9	54.3	85.2
66	10.0	99.9	36.4	66	80.8	92.4	71.2	66	66.7	98.9	60.5	66	94.9	54.3	84.7
67	10.0	99.9	35.3	67	80.8	92.4	70.3	67	66.7	98.9	59.4	67	94.9	54.3	84.1
68	10.0	99.9	34.3	68	80.8	92.4	69.3	68	66.7	98.9	58.3	68	94.9	54.3	83.5
69	10.0	99.9	33.3	69	80.8	92.4	68.3	69	66.7	98.9	57.1	69	94.9	54.3	82.8
70	10.0	99.9	32.2	70	80.8	92.4	67.3	70	66.7	98.9	56.0	70	94.9	54.3	82.1
71	10.0	99.9	31.2	71	80.8	92.4	66.2	71	66.7	98.9	54.8	71	94.9	54.3	81.4
72	10.0	99.9	30.2	72	80.8	92.4	65.1	72	66.7	98.9	53.6	72	94.9	54.3	80.7
73	10.0	99.9	29.1	73	80.8	92.4	64.0	73	66.7	98.9	52.3	73	94.9	54.3	79.9
74	10.0	99.9	28.1	74	80.8	92.4	62.8	74	66.7	98.9	51.0	74	94.9	54.3	79.0
75	10.0	99.9	27.0	75	80.8	92.4	61.6	75	66.7	98.9	49.7	75	94.9	54.3	78.1
76	10.0	99.9	26.0	76	80.8	92.4	60.3	76	66.7	98.9	48.4	76	94.9	54.3	77.2
77	10.0	99.9	24.9	77	80.8	92.4	58.9	77	66.7	98.9	47.0	77	94.9	54.3	76.2
78	10.0	99.9	23.8	78	80.8	92.4	57.5	78	66.7	98.9	45.6	78	94.9	54.3	75.1
79	10.0	99.9	22.8	79	80.8	92.4	56.1	79	66.7	98.9	44.1	79	94.9	54.3	74.0
80	10.0	99.9	21.7	80	80.8	92.4	54.6	80	66.7	98.9	42.6	80	94.9	54.3	72.8
81	10.0	99.9	20.7	81	80.8	92.4	53.0	81	66.7	98.9	41.0	81	94.9	54.3	71.5
82	10.0	99.9	19.6	82	80.8	92.4	51.3	82	66.7	98.9	39.5	82	94.9	54.3	70.2
83	10.0	99.9	18.5	83	80.8	92.4	49.6	83	66.7	98.9	37.8	83	94.9	54.3	68.7
84	10.0	99.9	17.5	84	80.8	92.4	47.8	84	66.7	98.9	36.1	84	94.9	54.3	67.1
85	10.0	99.9	16.4	85	80.8	92.4	45.9	85	66.7	98.9	34.4	85	94.9	54.3	65.4
86	10.0	99.9	15.3	86	80.8	92.4	43.9	86	66.7	98.9	32.6	86	94.9	54.3	63.6
87	10.0	99.9	14.2	87	80.8	92.4	41.8	87	66.7	98.9	30.7	87	94.9	54.3	61.6
88	10.0	99.9	13.1	88	80.8	92.4	39.6	88	66.7	98.9	28.8	88	94.9	54.3	59.4
89	10.0	99.9	12.1	89	80.8	92.4	37.3	89	66.7	98.9	26.8	89	94.9	54.3	57.0
90	10.0	99.9	11.0	90	80.8	92.4	34.8	90	66.7	98.9	24.8	90	94.9	54.3	54.4
91	10.0	99.9	9.9	91	80.8	92.4	32.2	91	66.7	98.9	22.7	91	94.9	54.3	51.5
92	10.0	99.9	8.8	92	80.8	92.4	29.5	92	66.7	98.9	20.5	92	94.9	54.3	48.2
93	10.0	99.9	7.7	93	80.8	92.4	26.6	93	66.7	98.9	18.3	93	94.9	54.3	44.7
94	10.0	99.9	6.6	94	80.8	92.4	23.5	94	66.7	98.9	15.9	94	94.9	54.3	40.6
95	10.0	99.9	5.5	95	80.8	92.4	20.2	95	66.7	98.9	13.5	95	94.9	54.3	36.1
96	10.0	99.9	4.4	96	80.8	92.4	16.7	96	66.7	98.9	11.0	96	94.9	54.3	30.9
97	10.0	99.9	3.3	97	80.8	92.4	12.9	97	66.7	98.9	8.4	97	94.9	54.3	24.9
98	10.0	99.9	2.2	98	80.8	92.4	8.9	98	66.7	98.9	5.7	98	94.9	54.3	18.0
99	10.0	99.9	1.1	99	80.8	92.4	4.6	99	66.7	98.9	2.9	99	94.9	54.3	9.8
100	10.0	99.9	0.0	100	80.8	92.4	0.0	100	66.7	98.9	0.0	100	94.9	54.3	0.0

<u>SS-R</u>				<u>RS-R</u>				<u>SR-R</u>				<u>RR-R</u>			
Prevalence of ethambutol resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of ethambutol resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of ethambutol resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of ethambutol resistance	Sensitivity	Specificity	Negative Predictive Value
1	n/a	98.8	n/a	1	85.7	74.1	99.8	1	n/a	100.0	n/a	1	98.6	25.0	99.9
2	n/a	98.8	n/a	2	85.7	74.1	99.6	2	n/a	100.0	n/a	2	98.6	25.0	99.9
3	n/a	98.8	n/a	3	85.7	74.1	99.4	3	n/a	100.0	n/a	3	98.6	25.0	99.8
4	n/a	98.8	n/a	4	85.7	74.1	99.2	4	n/a	100.0	n/a	4	98.6	25.0	99.8
5	n/a	98.8	n/a	5	85.7	74.1	99.0	5	n/a	100.0	n/a	5	98.6	25.0	99.7
6	n/a	98.8	n/a	6	85.7	74.1	98.8	6	n/a	100.0	n/a	6	98.6	25.0	99.6
7	n/a	98.8	n/a	7	85.7	74.1	98.6	7	n/a	100.0	n/a	7	98.6	25.0	99.6
8	n/a	98.8	n/a	8	85.7	74.1	98.4	8	n/a	100.0	n/a	8	98.6	25.0	99.5
9	n/a	98.8	n/a	9	85.7	74.1	98.1	9	n/a	100.0	n/a	9	98.6	25.0	99.4
10	n/a	98.8	n/a	10	85.7	74.1	97.9	10	n/a	100.0	n/a	10	98.6	25.0	99.4
11	n/a	98.8	n/a	11	85.7	74.1	97.7	11	n/a	100.0	n/a	11	98.6	25.0	99.3
12	n/a	98.8	n/a	12	85.7	74.1	97.4	12	n/a	100.0	n/a	12	98.6	25.0	99.2
13	n/a	98.8	n/a	13	85.7	74.1	97.2	13	n/a	100.0	n/a	13	98.6	25.0	99.2
14	n/a	98.8	n/a	14	85.7	74.1	97.0	14	n/a	100.0	n/a	14	98.6	25.0	99.1
15	n/a	98.8	n/a	15	85.7	74.1	96.7	15	n/a	100.0	n/a	15	98.6	25.0	99.0
16	n/a	98.8	n/a	16	85.7	74.1	96.5	16	n/a	100.0	n/a	16	98.6	25.0	98.9
17	n/a	98.8	n/a	17	85.7	74.1	96.2	17	n/a	100.0	n/a	17	98.6	25.0	98.9
18	n/a	98.8	n/a	18	85.7	74.1	95.9	18	n/a	100.0	n/a	18	98.6	25.0	98.8
19	n/a	98.8	n/a	19	85.7	74.1	95.7	19	n/a	100.0	n/a	19	98.6	25.0	98.7
20	n/a	98.8	n/a	20	85.7	74.1	95.4	20	n/a	100.0	n/a	20	98.6	25.0	98.6
21	n/a	98.8	n/a	21	85.7	74.1	95.1	21	n/a	100.0	n/a	21	98.6	25.0	98.5
22	n/a	98.8	n/a	22	85.7	74.1	94.8	22	n/a	100.0	n/a	22	98.6	25.0	98.4
23	n/a	98.8	n/a	23	85.7	74.1	94.6	23	n/a	100.0	n/a	23	98.6	25.0	98.3
24	n/a	98.8	n/a	24	85.7	74.1	94.3	24	n/a	100.0	n/a	24	98.6	25.0	98.2
25	n/a	98.8	n/a	25	85.7	74.1	94.0	25	n/a	100.0	n/a	25	98.6	25.0	98.1
26	n/a	98.8	n/a	26	85.7	74.1	93.7	26	n/a	100.0	n/a	26	98.6	25.0	98.0
27	n/a	98.8	n/a	27	85.7	74.1	93.3	27	n/a	100.0	n/a	27	98.6	25.0	97.9
28	n/a	98.8	n/a	28	85.7	74.1	93.0	28	n/a	100.0	n/a	28	98.6	25.0	97.8
29	n/a	98.8	n/a	29	85.7	74.1	92.7	29	n/a	100.0	n/a	29	98.6	25.0	97.7
30	n/a	98.8	n/a	30	85.7	74.1	92.4	30	n/a	100.0	n/a	30	98.6	25.0	97.6
31	n/a	98.8	n/a	31	85.7	74.1	92.0	31	n/a	100.0	n/a	31	98.6	25.0	97.5
32	n/a	98.8	n/a	32	85.7	74.1	91.7	32	n/a	100.0	n/a	32	98.6	25.0	97.4
33	n/a	98.8	n/a	33	85.7	74.1	91.3	33	n/a	100.0	n/a	33	98.6	25.0	97.3
34	n/a	98.8	n/a	34	85.7	74.1	91.0	34	n/a	100.0	n/a	34	98.6	25.0	97.2
35	n/a	98.8	n/a	35	85.7	74.1	90.6	35	n/a	100.0	n/a	35	98.6	25.0	97.0
36	n/a	98.8	n/a	36	85.7	74.1	90.2	36	n/a	100.0	n/a	36	98.6	25.0	96.9
37	n/a	98.8	n/a	37	85.7	74.1	89.8	37	n/a	100.0	n/a	37	98.6	25.0	96.8
38	n/a	98.8	n/a	38	85.7	74.1	89.4	38	n/a	100.0	n/a	38	98.6	25.0	96.6
39	n/a	98.8	n/a	39	85.7	74.1	89.0	39	n/a	100.0	n/a	39	98.6	25.0	96.5
40	n/a	98.8	n/a	40	85.7	74.1	88.6	40	n/a	100.0	n/a	40	98.6	25.0	96.4
41	n/a	98.8	n/a	41	85.7	74.1	88.2	41	n/a	100.0	n/a	41	98.6	25.0	96.2
42	n/a	98.8	n/a	42	85.7	74.1	87.7	42	n/a	100.0	n/a	42	98.6	25.0	96.1
43	n/a	98.8	n/a	43	85.7	74.1	87.3	43	n/a	100.0	n/a	43	98.6	25.0	95.9
44	n/a	98.8	n/a	44	85.7	74.1	86.8	44	n/a	100.0	n/a	44	98.6	25.0	95.7
45	n/a	98.8	n/a	45	85.7										

47	n/a	98.8	n/a	47	85.7	74.1	85.4	47	n/a	100.0	n/a	47	98.6	25.0	95.2
48	n/a	98.8	n/a	48	85.7	74.1	84.9	48	n/a	100.0	n/a	48	98.6	25.0	95.0
49	n/a	98.8	n/a	49	85.7	74.1	84.4	49	n/a	100.0	n/a	49	98.6	25.0	94.8
50	n/a	98.8	n/a	50	85.7	74.1	83.8	50	n/a	100.0	n/a	50	98.6	25.0	94.6
51	n/a	98.8	n/a	51	85.7	74.1	83.3	51	n/a	100.0	n/a	51	98.6	25.0	94.4
52	n/a	98.8	n/a	52	85.7	74.1	82.7	52	n/a	100.0	n/a	52	98.6	25.0	94.2
53	n/a	98.8	n/a	53	85.7	74.1	82.1	53	n/a	100.0	n/a	53	98.6	25.0	94.0
54	n/a	98.8	n/a	54	85.7	74.1	81.5	54	n/a	100.0	n/a	54	98.6	25.0	93.8
55	n/a	98.8	n/a	55	85.7	74.1	80.9	55	n/a	100.0	n/a	55	98.6	25.0	93.5
56	n/a	98.8	n/a	56	85.7	74.1	80.3	56	n/a	100.0	n/a	56	98.6	25.0	93.3
57	n/a	98.8	n/a	57	85.7	74.1	79.6	57	n/a	100.0	n/a	57	98.6	25.0	93.0
58	n/a	98.8	n/a	58	85.7	74.1	79.0	58	n/a	100.0	n/a	58	98.6	25.0	92.7
59	n/a	98.8	n/a	59	85.7	74.1	78.3	59	n/a	100.0	n/a	59	98.6	25.0	92.4
60	n/a	98.8	n/a	60	85.7	74.1	77.6	60	n/a	100.0	n/a	60	98.6	25.0	92.2
61	n/a	98.8	n/a	61	85.7	74.1	76.8	61	n/a	100.0	n/a	61	98.6	25.0	91.8
62	n/a	98.8	n/a	62	85.7	74.1	76.1	62	n/a	100.0	n/a	62	98.6	25.0	91.5
63	n/a	98.8	n/a	63	85.7	74.1	75.3	63	n/a	100.0	n/a	63	98.6	25.0	91.2
64	n/a	98.8	n/a	64	85.7	74.1	74.5	64	n/a	100.0	n/a	64	98.6	25.0	90.8
65	n/a	98.8	n/a	65	85.7	74.1	73.6	65	n/a	100.0	n/a	65	98.6	25.0	90.5
66	n/a	98.8	n/a	66	85.7	74.1	72.8	66	n/a	100.0	n/a	66	98.6	25.0	90.1
67	n/a	98.8	n/a	67	85.7	74.1	71.9	67	n/a	100.0	n/a	67	98.6	25.0	89.7
68	n/a	98.8	n/a	68	85.7	74.1	70.9	68	n/a	100.0	n/a	68	98.6	25.0	89.2
69	n/a	98.8	n/a	69	85.7	74.1	70.0	69	n/a	100.0	n/a	69	98.6	25.0	88.8
70	n/a	98.8	n/a	70	85.7	74.1	69.0	70	n/a	100.0	n/a	70	98.6	25.0	88.3
71	n/a	98.8	n/a	71	85.7	74.1	67.9	71	n/a	100.0	n/a	71	98.6	25.0	87.8
72	n/a	98.8	n/a	72	85.7	74.1	66.8	72	n/a	100.0	n/a	72	98.6	25.0	87.3
73	n/a	98.8	n/a	73	85.7	74.1	65.7	73	n/a	100.0	n/a	73	98.6	25.0	86.7
74	n/a	98.8	n/a	74	85.7	74.1	64.6	74	n/a	100.0	n/a	74	98.6	25.0	86.1
75	n/a	98.8	n/a	75	85.7	74.1	63.3	75	n/a	100.0	n/a	75	98.6	25.0	85.4
76	n/a	98.8	n/a	76	85.7	74.1	62.1	76	n/a	100.0	n/a	76	98.6	25.0	84.8
77	n/a	98.8	n/a	77	85.7	74.1	60.8	77	n/a	100.0	n/a	77	98.6	25.0	84.0
78	n/a	98.8	n/a	78	85.7	74.1	59.4	78	n/a	100.0	n/a	78	98.6	25.0	83.2
79	n/a	98.8	n/a	79	85.7	74.1	58.0	79	n/a	100.0	n/a	79	98.6	25.0	82.4
80	n/a	98.8	n/a	80	85.7	74.1	56.5	80	n/a	100.0	n/a	80	98.6	25.0	81.5
81	n/a	98.8	n/a	81	85.7	74.1	54.9	81	n/a	100.0	n/a	81	98.6	25.0	80.5
82	n/a	98.8	n/a	82	85.7	74.1	53.2	82	n/a	100.0	n/a	82	98.6	25.0	79.4
83	n/a	98.8	n/a	83	85.7	74.1	51.5	83	n/a	100.0	n/a	83	98.6	25.0	78.3
84	n/a	98.8	n/a	84	85.7	74.1	49.7	84	n/a	100.0	n/a	84	98.6	25.0	77.0
85	n/a	98.8	n/a	85	85.7	74.1	47.8	85	n/a	100.0	n/a	85	98.6	25.0	75.7
86	n/a	98.8	n/a	86	85.7	74.1	45.8	86	n/a	100.0	n/a	86	98.6	25.0	74.1
87	n/a	98.8	n/a	87	85.7	74.1	43.7	87	n/a	100.0	n/a	87	98.6	25.0	72.5
88	n/a	98.8	n/a	88	85.7	74.1	41.4	88	n/a	100.0	n/a	88	98.6	25.0	70.6
89	n/a	98.8	n/a	89	85.7	74.1	39.1	89	n/a	100.0	n/a	89	98.6	25.0	68.5
90	n/a	98.8	n/a	90	85.7	74.1	36.6	90	n/a	100.0	n/a	90	98.6	25.0	66.2
91	n/a	98.8	n/a	91	85.7	74.1	33.9	91	n/a	100.0	n/a	91	98.6	25.0	63.5
92	n/a	98.8	n/a	92	85.7	74.1	31.1	92	n/a	100.0	n/a	92	98.6	25.0	60.5
93	n/a	98.8	n/a	93	85.7	74.1	28.1	93	n/a	100.0	n/a	93	98.6	25.0	57.0
94	n/a	98.8	n/a	94	85.7	74.1	24.9	94	n/a	100.0	n/a	94	98.6	25.0	52.9
95	n/a	98.8	n/a	95	85.7	74.1	21.4	95	n/a	100.0	n/a	95	98.6	25.0	48.1
96	n/a	98.8	n/a	96	85.7	74.1	17.8	96	n/a	100.0	n/a	96	98.6	25.0	42.3
97	n/a	98.8	n/a	97	85.7	74.1	13.8	97	n/a	100.0	n/a	97	98.6	25.0	35.3
98	n/a	98.8	n/a	98	85.7	74.1	9.6	98	n/a	100.0	n/a	98	98.6	25.0	26.4
99	n/a	98.8	n/a	99	85.7	74.1	5.0	99	n/a	100.0	n/a	99	98.6	25.0	15.1
100	n/a	98.8	n/a	100	85.7	74.1	0.0	100	n/a	100.0	n/a	100	98.6	25.0	0.0

<u>SSS-</u>				<u>RSS-</u>				<u>RRS-</u>				<u>SRS-</u>				
Prevalence of pyrazinamide resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of pyrazinamide resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of pyrazinamide resistance	Sensitivity	Specificity	Negative Predictive Value	Prevalence of pyrazinamide resistance	Sensitivity	Specificity	Negative Predictive Value	
1		72.5	99.8	99.7	1	61.9	98.9	99.6	1	86.9	88.4	99.9	1	0.0	100.0	99.0
2		72.5	99.8	99.4	2	61.9	98.9	99.2	2	86.9	88.4	99.7	2	0.0	100.0	98.0
3		72.5	99.8	99.2	3	61.9	98.9	98.8	3	86.9	88.4	99.5	3	0.0	100.0	97.0
4		72.5	99.8	98.9	4	61.9	98.9	98.4	4	86.9	88.4	99.4	4	0.0	100.0	96.0
5		72.5	99.8	98.6	5	61.9	98.9	98.0	5	86.9	88.4	99.2	5	0.0	100.0	95.0
6		72.5	99.8	98.3	6	61.9	98.9	97.6	6	86.9	88.4	99.1	6	0.0	100.0	94.0
7		72.5	99.8	98.0	7	61.9	98.9	97.2	7	86.9	88.4	98.9	7	0.0	100.0	93.0
8		72.5	99.8	97.7	8	61.9	98.9	96.8	8	86.9	88.4	98.7	8	0.0	100.0	92.0
9		72.5	99.8	97.4	9	61.9	98.9	96.3	9	86.9	88.4	98.6	9	0.0	100.0	91.0
10		72.5	99.8	97.0	10	61.9	98.9	95.9	10	86.9	88.4	98.4	10	0.0	100.0	90.0
11		72.5	99.8	96.7	11	61.9	98.9	95.5	11	86.9	88.4	98.2	11	0.0	100.0	89.0
12		72.5	99.8	96.4	12	61.9	98.9	95.0	12	86.9	88.4	98.0	12	0.0	100.0	88.0
13		72.5	99.8	96.1	13	61.9	98.9	94.6	13	86.9	88.4	97.8	13	0.0	100.0	87.0
14		72.5	99.8	95.7	14	61.9	98.9	94.1	14	86.9	88.4	97.6	14	0.0	100.0	86.0
15		72.5	99.8	95.4	15	61.9	98.9	93.6	15	86.9	88.4	97.5	15	0.0	100.0	85.0
16		72.5	99.8	95.0	16	61.9	98.9	93.2	16	86.9	88.4	97.3	16	0.0	100.0	84.0
17		72.5	99.8	94.7	17	61.9	98.9	92.7	17	86.9	88.4	97.1	17	0.0	100.0	83.0
18		72.5	99.8	94.3	18	61.9	98.9	92.2	18	86.9	88.4	96.9	18	0.0	100.0	82.0
19		72.5	99.8	93.9	19	61.9	98.9	91.7	19	86.9	88.4	96.6	19	0.0	100.0	81.0
20		72.5	99.8	93.6	20	61.9	98.9	91.2	20	86.9	88.4	96.4	20	0.0	100.0	80.0
21		72.5	99.8	93.2	21	61.9	98.9	90.7	21	86.9	88.4	96.2	21	0.0	100.0	79.0
22		72.5	99.8	92.8	22	61.9	98.9	90.2	22	86.9	88.4	96.0	22	0.0	100.0	78.0
23		72.5	99.8	92.4	23	61.9	98.9	89.7	23	86.9	88.4	95.8	23	0.0	100.0	77.0
24		72.5	99.8	92.0	24	61.9	98.9	89.2	24	86.9	88.4	95.5	24	0.0	100.0	76.0
25		72.5	99.8	91.6	25	61.9	98.9	88.6	25	86.9	88.4	95.3	25	0.0	100.0	75.0
26		72.5	99.8	91.2	26	61.9	98.9	88.1	26	86.9	88.4	95.1	26	0.0	100.0	74.0
27		72.5	99.8	90.8	27	61.9	98.9	87.5	27	86.9	88.4	94.8	27	0.0	100.0	73.0
28		72.5	99.8	90.3	28	61.9	98.9	87.0	28	86.9	88.4	94.6	28	0.0	100.0	72.0
29		72.5	99.8	89.9	29	61.9	98.9	86.4	29	86.9	88.4	94.3	29	0.0	100.0	71.0
30		72.5	99.8	89.5	30	61.9	98.9	85.8	30	86.9	88.4	94.0	30	0.0	100.0	70.0
31		72.5	99.8	89.0	31	61.9	98.9	85.2	31	86.9	88.4	93.8	31	0.0	100.0	69.0
32		72.5	99.8	88.5	32	61.9	98.9	84.6	32	86.9	88.4	93.5	32	0.0	100.0	68.0
33		72.5	99.8	88.1	33	61.9	98.9	84.0	33	86.9	88.4	93.2	33	0.0	100.0	67.0
34		72.5	99.8	87.6	34	61.9	98.9	83.4	34	86.9	88.4	92.9	34	0.0	100.0	66.0
35		72.5	99.8	87.1	35	61.9	98.9	82.8	35	86.9	88.4	92.6	35	0.0	100.0	65.0

37	72.5	99.8	86.1	37	61.9	98.9	81.5	37	86.9	88.4	92.0	37	0.0	100.0	63.0
38	72.5	99.8	85.6	38	61.9	98.9	80.9	38	86.9	88.4	91.7	38	0.0	100.0	62.0
39	72.5	99.8	85.0	39	61.9	98.9	80.2	39	86.9	88.4	91.4	39	0.0	100.0	61.0
40	72.5	99.8	84.5	40	61.9	98.9	79.6	40	86.9	88.4	91.0	40	0.0	100.0	60.0
41	72.5	99.8	83.9	41	61.9	98.9	78.9	41	86.9	88.4	90.7	41	0.0	100.0	59.0
42	72.5	99.8	83.4	42	61.9	98.9	78.2	42	86.9	88.4	90.3	42	0.0	100.0	58.0
43	72.5	99.8	82.8	43	61.9	98.9	77.5	43	86.9	88.4	90.0	43	0.0	100.0	57.0
44	72.5	99.8	82.2	44	61.9	98.9	76.8	44	86.9	88.4	89.6	44	0.0	100.0	56.0
45	72.5	99.8	81.6	45	61.9	98.9	76.0	45	86.9	88.4	89.2	45	0.0	100.0	55.0
46	72.5	99.8	81.0	46	61.9	98.9	75.3	46	86.9	88.4	88.8	46	0.0	100.0	54.0
47	72.5	99.8	80.4	47	61.9	98.9	74.5	47	86.9	88.4	88.4	47	0.0	100.0	53.0
48	72.5	99.8	79.7	48	61.9	98.9	73.8	48	86.9	88.4	88.0	48	0.0	100.0	52.0
49	72.5	99.8	79.1	49	61.9	98.9	73.0	49	86.9	88.4	87.5	49	0.0	100.0	51.0
50	72.5	99.8	78.4	50	61.9	98.9	72.2	50	86.9	88.4	87.1	50	0.0	100.0	50.0
51	72.5	99.8	77.7	51	61.9	98.9	71.4	51	86.9	88.4	86.6	51	0.0	100.0	49.0
52	72.5	99.8	77.0	52	61.9	98.9	70.5	52	86.9	88.4	86.2	52	0.0	100.0	48.0
53	72.5	99.8	76.3	53	61.9	98.9	69.7	53	86.9	88.4	85.7	53	0.0	100.0	47.0
54	72.5	99.8	75.6	54	61.9	98.9	68.9	54	86.9	88.4	85.2	54	0.0	100.0	46.0
55	72.5	99.8	74.8	55	61.9	98.9	68.0	55	86.9	88.4	84.7	55	0.0	100.0	45.0
56	72.5	99.8	74.1	56	61.9	98.9	67.1	56	86.9	88.4	84.1	56	0.0	100.0	44.0
57	72.5	99.8	73.3	57	61.9	98.9	66.2	57	86.9	88.4	83.6	57	0.0	100.0	43.0
58	72.5	99.8	72.5	58	61.9	98.9	65.3	58	86.9	88.4	83.0	58	0.0	100.0	42.0
59	72.5	99.8	71.6	59	61.9	98.9	64.3	59	86.9	88.4	82.4	59	0.0	100.0	41.0
60	72.5	99.8	70.8	60	61.9	98.9	63.4	60	86.9	88.4	81.8	60	0.0	100.0	40.0
61	72.5	99.8	69.9	61	61.9	98.9	62.4	61	86.9	88.4	81.2	61	0.0	100.0	39.0
62	72.5	99.8	69.0	62	61.9	98.9	61.4	62	86.9	88.4	80.5	62	0.0	100.0	38.0
63	72.5	99.8	68.1	63	61.9	98.9	60.4	63	86.9	88.4	79.9	63	0.0	100.0	37.0
64	72.5	99.8	67.1	64	61.9	98.9	59.3	64	86.9	88.4	79.2	64	0.0	100.0	36.0
65	72.5	99.8	66.2	65	61.9	98.9	58.3	65	86.9	88.4	78.4	65	0.0	100.0	35.0
66	72.5	99.8	65.2	66	61.9	98.9	57.2	66	86.9	88.4	77.7	66	0.0	100.0	34.0
67	72.5	99.8	64.2	67	61.9	98.9	56.1	67	86.9	88.4	76.9	67	0.0	100.0	33.0
68	72.5	99.8	63.1	68	61.9	98.9	55.0	68	86.9	88.4	76.1	68	0.0	100.0	32.0
69	72.5	99.8	62.0	69	61.9	98.9	53.8	69	86.9	88.4	75.2	69	0.0	100.0	31.0
70	72.5	99.8	60.9	70	61.9	98.9	52.7	70	86.9	88.4	74.3	70	0.0	100.0	30.0
71	72.5	99.8	59.7	71	61.9	98.9	51.5	71	86.9	88.4	73.4	71	0.0	100.0	29.0
72	72.5	99.8	58.6	72	61.9	98.9	50.2	72	86.9	88.4	72.4	72	0.0	100.0	28.0
73	72.5	99.8	57.3	73	61.9	98.9	49.0	73	86.9	88.4	71.4	73	0.0	100.0	27.0
74	72.5	99.8	56.1	74	61.9	98.9	47.7	74	86.9	88.4	70.4	74	0.0	100.0	26.0
75	72.5	99.8	54.8	75	61.9	98.9	46.4	75	86.9	88.4	69.2	75	0.0	100.0	25.0
76	72.5	99.8	53.4	76	61.9	98.9	45.0	76	86.9	88.4	68.1	76	0.0	100.0	24.0
77	72.5	99.8	52.0	77	61.9	98.9	43.7	77	86.9	88.4	66.9	77	0.0	100.0	23.0
78	72.5	99.8	50.6	78	61.9	98.9	42.3	78	86.9	88.4	65.6	78	0.0	100.0	22.0
79	72.5	99.8	49.1	79	61.9	98.9	40.8	79	86.9	88.4	64.2	79	0.0	100.0	21.0
80	72.5	99.8	47.6	80	61.9	98.9	39.3	80	86.9	88.4	62.8	80	0.0	100.0	20.0
81	72.5	99.8	46.0	81	61.9	98.9	37.8	81	86.9	88.4	61.3	81	0.0	100.0	19.0
82	72.5	99.8	44.4	82	61.9	98.9	36.3	82	86.9	88.4	59.7	82	0.0	100.0	18.0
83	72.5	99.8	42.7	83	61.9	98.9	34.7	83	86.9	88.4	58.0	83	0.0	100.0	17.0
84	72.5	99.8	40.9	84	61.9	98.9	33.1	84	86.9	88.4	56.3	84	0.0	100.0	16.0
85	72.5	99.8	39.1	85	61.9	98.9	31.4	85	86.9	88.4	54.4	85	0.0	100.0	15.0
86	72.5	99.8	37.2	86	61.9	98.9	29.7	86	86.9	88.4	52.4	86	0.0	100.0	14.0
87	72.5	99.8	35.2	87	61.9	98.9	27.9	87	86.9	88.4	50.2	87	0.0	100.0	13.0
88	72.5	99.8	33.1	88	61.9	98.9	26.1	88	86.9	88.4	47.9	88	0.0	100.0	12.0
89	72.5	99.8	31.0	89	61.9	98.9	24.3	89	86.9	88.4	45.5	89	0.0	100.0	11.0
90	72.5	99.8	28.8	90	61.9	98.9	22.4	90	86.9	88.4	42.9	90	0.0	100.0	10.0
91	72.5	99.8	26.4	91	61.9	98.9	20.4	91	86.9	88.4	40.1	91	0.0	100.0	9.0
92	72.5	99.8	24.0	92	61.9	98.9	18.4	92	86.9	88.4	37.0	92	0.0	100.0	8.0
93	72.5	99.8	21.5	93	61.9	98.9	16.3	93	86.9	88.4	33.7	93	0.0	100.0	7.0
94	72.5	99.8	18.8	94	61.9	98.9	14.2	94	86.9	88.4	30.1	94	0.0	100.0	6.0
95	72.5	99.8	16.1	95	61.9	98.9	12.0	95	86.9	88.4	26.2	95	0.0	100.0	5.0
96	72.5	99.8	13.1	96	61.9	98.9	9.8	96	86.9	88.4	22.0	96	0.0	100.0	4.0
97	72.5	99.8	10.1	97	61.9	98.9	7.4	97	86.9	88.4	17.3	97	0.0	100.0	3.0
98	72.5	99.8	6.9	98	61.9	98.9	5.0	98	86.9	88.4	12.1	98	0.0	100.0	2.0
99	72.5	99.8	3.5	99	61.9	98.9	2.6	99	86.9	88.4	6.4	99	0.0	100.0	1.0
100	72.5	99.8	0.0	100	61.9	98.9	0.0	100	86.9	88.4	0.0	100	0.0	100.0	0.0

RRR-

Prevalence of pyrazinamide resistance	Sensitivity	Specificity	Negative Predictive Value
1	97.3	66.9	100.0
2	97.3	66.9	99.9
3	97.3	66.9	99.9
4	97.3	66.9	99.8
5	97.3	66.9	99.8
6	97.3	66.9	99.7
7	97.3	66.9	99.7
8	97.3	66.9	99.6
9	97.3	66.9	99.6
10	97.3	66.9	99.5
11	97.3	66.9	99.5
12	97.3	66.9	99.4
13	97.3	66.9	99.4
14	97.3	66.9	99.3
15	97.3	66.9	99.3
16	97.3	66.9	99.2
17	97.3	66.9	99.2
18	97.3	66.9	99.1
19	97.3	66.9	99.0
20	97.3	66.9	99.0
21	97.3	66.9	98.9
22	97.3	66.9	98.9
23	97.3	66.9	98.8
24	97.3	66.9	98.7
25	97.3	66.9	98.7
26	97.3	66.9	98.6

SRR-

Prevalence of pyrazinamide resistance	Sensitivity	Specificity	Negative Predictive Value
1	n/a	100.0	n/a
2	n/a	100.0	n/a
3	n/a	100.0	n/a
4	n/a	100.0	n/a
5	n/a	100.0	n/a
6	n/a	100.0	n/a
7	n/a	100.0	n/a
8	n/a	100.0	n/a
9	n/a	100.0	n/a
10	n/a	100.0	n/a
11	n/a	100.0	n/a
12	n/a	100.0	n/a
13	n/a	100.0	n/a
14	n/a	100.0	n/a
15	n/a	100.0	n/a
16	n/a	100.0	n/a
17	n/a	100.0	n/a
18	n/a	100.0	n/a
19	n/a	100.0	n/a
20	n/a	100.0	n/a
21	n/a	100.0	n/a
22	n/a	100.0	n/a
23	n/a	100.0	n/a
24	n/a	100.0	n/a
25	n/a	100.0	n/a
26	n/a	100.0	n/a

RSR-

Prevalence of pyrazinamide resistance	Sensitivity	Specificity	Negative Predictive Value
1	83.3	100.0	99.8
2	83.3	100.0	99.7
3	83.3	100.0	99.5
4	83.3	100.0	99.3
5	83.3	100.0	99.1
6	83.3	100.0	98.9
7	83.3	100.0	98.8
8	83.3	100.0	98.6
9	83.3	100.0	98.4
10	83.3	100.0	98.2
11	83.3	100.0	98.0
12	83.3	100.0	97.8
13	83.3	100.0	97.6
14	83.3	100.0	97.4
15	83.3	100.0	97.1
16	83.3	100.0	96.9
17	83.3	100.0	96.7
18	83.3	100.0	96.5
19	83.3	100.0	96.2
20	83.3	100.0	96.0
21	83.3	100.0	95.8
22	83.3	100.0	95.5
23	83.3	100.0	95.3
24	83.3	100.0	95.0
25	83.3	100.0	94.7
26	83.3	100.0	

27	97.3	66.9	98.5	27	n/a	100.0	n/a	27	83.3	100.0	94.2	27	n/a	100.0	n/a
28	97.3	66.9	98.4	28	n/a	100.0	n/a	28	83.3	100.0	93.9	28	n/a	100.0	n/a
29	97.3	66.9	98.4	29	n/a	100.0	n/a	29	83.3	100.0	93.6	29	n/a	100.0	n/a
30	97.3	66.9	98.3	30	n/a	100.0	n/a	30	83.3	100.0	93.3	30	n/a	100.0	n/a
31	97.3	66.9	98.2	31	n/a	100.0	n/a	31	83.3	100.0	93.0	31	n/a	100.0	n/a
32	97.3	66.9	98.1	32	n/a	100.0	n/a	32	83.3	100.0	92.7	32	n/a	100.0	n/a
33	97.3	66.9	98.0	33	n/a	100.0	n/a	33	83.3	100.0	92.4	33	n/a	100.0	n/a
34	97.3	66.9	97.9	34	n/a	100.0	n/a	34	83.3	100.0	92.1	34	n/a	100.0	n/a
35	97.3	66.9	97.8	35	n/a	100.0	n/a	35	83.3	100.0	91.8	35	n/a	100.0	n/a
36	97.3	66.9	97.7	36	n/a	100.0	n/a	36	83.3	100.0	91.4	36	n/a	100.0	n/a
37	97.3	66.9	97.6	37	n/a	100.0	n/a	37	83.3	100.0	91.1	37	n/a	100.0	n/a
38	97.3	66.9	97.5	38	n/a	100.0	n/a	38	83.3	100.0	90.7	38	n/a	100.0	n/a
39	97.3	66.9	97.4	39	n/a	100.0	n/a	39	83.3	100.0	90.4	39	n/a	100.0	n/a
40	97.3	66.9	97.3	40	n/a	100.0	n/a	40	83.3	100.0	90.0	40	n/a	100.0	n/a
41	97.3	66.9	97.2	41	n/a	100.0	n/a	41	83.3	100.0	89.6	41	n/a	100.0	n/a
42	97.3	66.9	97.1	42	n/a	100.0	n/a	42	83.3	100.0	89.2	42	n/a	100.0	n/a
43	97.3	66.9	97.0	43	n/a	100.0	n/a	43	83.3	100.0	88.8	43	n/a	100.0	n/a
44	97.3	66.9	96.9	44	n/a	100.0	n/a	44	83.3	100.0	88.4	44	n/a	100.0	n/a
45	97.3	66.9	96.8	45	n/a	100.0	n/a	45	83.3	100.0	88.0	45	n/a	100.0	n/a
46	97.3	66.9	96.6	46	n/a	100.0	n/a	46	83.3	100.0	87.6	46	n/a	100.0	n/a
47	97.3	66.9	96.5	47	n/a	100.0	n/a	47	83.3	100.0	87.1	47	n/a	100.0	n/a
48	97.3	66.9	96.4	48	n/a	100.0	n/a	48	83.3	100.0	86.7	48	n/a	100.0	n/a
49	97.3	66.9	96.2	49	n/a	100.0	n/a	49	83.3	100.0	86.2	49	n/a	100.0	n/a
50	97.3	66.9	96.1	50	n/a	100.0	n/a	50	83.3	100.0	85.7	50	n/a	100.0	n/a
51	97.3	66.9	95.9	51	n/a	100.0	n/a	51	83.3	100.0	85.2	51	n/a	100.0	n/a
52	97.3	66.9	95.7	52	n/a	100.0	n/a	52	83.3	100.0	84.7	52	n/a	100.0	n/a
53	97.3	66.9	95.6	53	n/a	100.0	n/a	53	83.3	100.0	84.2	53	n/a	100.0	n/a
54	97.3	66.9	95.4	54	n/a	100.0	n/a	54	83.3	100.0	83.6	54	n/a	100.0	n/a
55	97.3	66.9	95.2	55	n/a	100.0	n/a	55	83.3	100.0	83.1	55	n/a	100.0	n/a
56	97.3	66.9	95.0	56	n/a	100.0	n/a	56	83.3	100.0	82.5	56	n/a	100.0	n/a
57	97.3	66.9	94.8	57	n/a	100.0	n/a	57	83.3	100.0	81.9	57	n/a	100.0	n/a
58	97.3	66.9	94.6	58	n/a	100.0	n/a	58	83.3	100.0	81.3	58	n/a	100.0	n/a
59	97.3	66.9	94.4	59	n/a	100.0	n/a	59	83.3	100.0	80.7	59	n/a	100.0	n/a
60	97.3	66.9	94.2	60	n/a	100.0	n/a	60	83.3	100.0	80.0	60	n/a	100.0	n/a
61	97.3	66.9	94.0	61	n/a	100.0	n/a	61	83.3	100.0	79.3	61	n/a	100.0	n/a
62	97.3	66.9	93.7	62	n/a	100.0	n/a	62	83.3	100.0	78.6	62	n/a	100.0	n/a
63	97.3	66.9	93.5	63	n/a	100.0	n/a	63	83.3	100.0	77.9	63	n/a	100.0	n/a
64	97.3	66.9	93.2	64	n/a	100.0	n/a	64	83.3	100.0	77.1	64	n/a	100.0	n/a
65	97.3	66.9	92.9	65	n/a	100.0	n/a	65	83.3	100.0	76.4	65	n/a	100.0	n/a
66	97.3	66.9	92.6	66	n/a	100.0	n/a	66	83.3	100.0	75.6	66	n/a	100.0	n/a
67	97.3	66.9	92.3	67	n/a	100.0	n/a	67	83.3	100.0	74.7	67	n/a	100.0	n/a
68	97.3	66.9	92.0	68	n/a	100.0	n/a	68	83.3	100.0	73.8	68	n/a	100.0	n/a
69	97.3	66.9	91.6	69	n/a	100.0	n/a	69	83.3	100.0	72.9	69	n/a	100.0	n/a
70	97.3	66.9	91.3	70	n/a	100.0	n/a	70	83.3	100.0	72.0	70	n/a	100.0	n/a
71	97.3	66.9	90.9	71	n/a	100.0	n/a	71	83.3	100.0	71.0	71	n/a	100.0	n/a
72	97.3	66.9	90.5	72	n/a	100.0	n/a	72	83.3	100.0	70.0	72	n/a	100.0	n/a
73	97.3	66.9	90.0	73	n/a	100.0	n/a	73	83.3	100.0	68.9	73	n/a	100.0	n/a
74	97.3	66.9	89.5	74	n/a	100.0	n/a	74	83.3	100.0	67.8	74	n/a	100.0	n/a
75	97.3	66.9	89.0	75	n/a	100.0	n/a	75	83.3	100.0	66.7	75	n/a	100.0	n/a
76	97.3	66.9	88.5	76	n/a	100.0	n/a	76	83.3	100.0	65.5	76	n/a	100.0	n/a
77	97.3	66.9	87.9	77	n/a	100.0	n/a	77	83.3	100.0	64.2	77	n/a	100.0	n/a
78	97.3	66.9	87.3	78	n/a	100.0	n/a	78	83.3	100.0	62.9	78	n/a	100.0	n/a
79	97.3	66.9	86.6	79	n/a	100.0	n/a	79	83.3	100.0	61.5	79	n/a	100.0	n/a
80	97.3	66.9	85.9	80	n/a	100.0	n/a	80	83.3	100.0	60.0	80	n/a	100.0	n/a
81	97.3	66.9	85.1	81	n/a	100.0	n/a	81	83.3	100.0	58.5	81	n/a	100.0	n/a
82	97.3	66.9	84.3	82	n/a	100.0	n/a	82	83.3	100.0	56.8	82	n/a	100.0	n/a
83	97.3	66.9	83.3	83	n/a	100.0	n/a	83	83.3	100.0	55.1	83	n/a	100.0	n/a
84	97.3	66.9	82.3	84	n/a	100.0	n/a	84	83.3	100.0	53.3	84	n/a	100.0	n/a
85	97.3	66.9	81.1	85	n/a	100.0	n/a	85	83.3	100.0	51.4	85	n/a	100.0	n/a
86	97.3	66.9	79.9	86	n/a	100.0	n/a	86	83.3	100.0	49.4	86	n/a	100.0	n/a
87	97.3	66.9	78.5	87	n/a	100.0	n/a	87	83.3	100.0	47.3	87	n/a	100.0	n/a
88	97.3	66.9	76.9	88	n/a	100.0	n/a	88	83.3	100.0	45.0	88	n/a	100.0	n/a
89	97.3	66.9	75.1	89	n/a	100.0	n/a	89	83.3	100.0	42.6	89	n/a	100.0	n/a
90	97.3	66.9	73.0	90	n/a	100.0	n/a	90	83.3	100.0	40.0	90	n/a	100.0	n/a
91	97.3	66.9	70.7	91	n/a	100.0	n/a	91	83.3	100.0	37.2	91	n/a	100.0	n/a
92	97.3	66.9	68.0	92	n/a	100.0	n/a	92	83.3	100.0	34.3	92	n/a	100.0	n/a
93	97.3	66.9	64.7	93	n/a	100.0	n/a	93	83.3	100.0	31.1	93	n/a	100.0	n/a
94	97.3	66.9	60.9	94	n/a	100.0	n/a	94	83.3	100.0	27.7	94	n/a	100.0	n/a
95	97.3	66.9	56.2	95	n/a	100.0	n/a	95	83.3	100.0	24.0	95	n/a	100.0	n/a
96	97.3	66.9	50.4	96	n/a	100.0	n/a	96	83.3	100.0	20.0	96	n/a	100.0	n/a
97	97.3	66.9	43.0	97	n/a	100.0	n/a	97	83.3	100.0	15.7	97	n/a	100.0	n/a
98	97.3	66.9	33.2	98	n/a	100.0	n/a	98	83.3	100.0	10.9	98	n/a	100.0	n/a
99	97.3	66.9	19.8	99	n/a	100.0	n/a	99	83.3	100.0	5.7	99	n/a	100.0	n/a
100	97.3	66.9	0.0	100	n/a	100.0	n/a	100	83.3	100.0	0.0	100	n/a	100.0	n/a

S4

	Resistant phenotype, n (%)					Susceptible phenotype, n (%)					PPV, (%)	NPV, (%)	Sensitivity (predicitons only) (%)	Sensitivity (all) (%)	Specificity (predicitons only) (%)	Specificity (all), (%)	No genotypic prediction made, (%)	Resistance prevalence (all) (%)	Resistance prevalence (predictions only) (%)	Difference in sensitivity vs. non deduplicated results (p-value)	Difference in specificity vs. non deduplicated results (p-value)
	R	S	U	F	Total	R	S	U	F	Total											
Deduplicated for genomically identical samples																					
Isoniazid	2,672	84	84	32	2,872	61	5,502	203	108	5,874	97.8	98.5	97.0	93.0	98.9	93.7	4.9	32.8	33.1	0.7	0.7
Rifampicin	2,388	65	6	68	2,527	77	5,935	190	137	6,339	96.9	98.9	97.4	94.5	98.7	93.6	4.5	28.5	29.0	0.7	0.9
Ethambutol	1,226	73	86	39	1,424	409	5,979	709	64	7,161	75.0	98.8	94.4	86.1	93.6	83.5	10.5	16.6	16.9	0.9	1.0
Pyrazinamide	740	77	105	59	981	168	5,436	170	86	5,860	81.5	98.6	90.6	75.4	97.0	92.8	6.1	14.3	12.7	0.6	0.5
Deduplicated for isolates within 5 SNPs																					
Isoniazid	2,112	77	75	24	2,288	34	4,741	181	102	5,058	98.4	98.4	96.5	92.3	99.3	93.7	5.2	31.1	31.4	0.2	0.1
Rifampicin	1,868	56	5	54	1,983	61	5,145	144	116	5,466	96.8	98.9	97.1	94.2	98.8	94.1	4.3	26.6	27.0	0.4	0.8
Ethambutol	907	67	69	31	1,074	309	5,156	627	50	6,142	74.6	98.7	93.1	84.5	94.3	83.9	10.8	14.9	15.1	0.1	0.1
Pyrazinamide	575	67	72	48	762	140	4,770	89	66	5,065	80.4	98.6	89.6	75.5	97.1	94.2	4.7	13.1	11.6	0.3	0.3

S5

S5: Drug profile predictions for isolates with complete profiles

Phenotype	Prediction														Total	
	RRRR	RRRS	RRSR	RRSS	RSRR	RSRS	RSSR	RSSS	SRRR	SRRS	SRSS	SSRS	SSSR	SSSS		
RRRR	488	10	6	0	0	1	0	0	1	0	0	0	0	0	0	506
RRRS	95	158	3	10	0	4	1	1	0	0	1	0	0	0	0	273
RRSR	105	12	33	5	0	0	2	1	0	0	0	0	0	0	0	158
RRSS	35	92	9	176	0	0	0	4	0	1	5	0	0	11	333	
RSRR	8	1	0	0	1	0	0	1	0	0	0	0	0	0	11	
RSRS	0	2	0	0	0	18	0	2	0	0	0	0	0	3	25	
RSSR	1	0	1	0	1	0	8	4	0	0	0	0	0	1	16	
RSSS	2	4	0	8	0	22	2	306	0	0	0	0	0	25	369	
SRRS	0	2	0	0	0	0	0	0	0	0	2	0	0	0	4	
SRRR	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3	
SRSS	0	1	0	5	0	0	0	0	0	0	59	0	0	16	81	
SSRS	0	0	0	0	0	0	0	0	0	0	1	0	0	7	8	
SSSR	0	0	0	0	0	0	0	0	0	0	0	0	51	20	71	
SSSS	0	0	0	1	0	0	0	18	1	0	23	2	10	3,952	4,007	
Total	734	282	52	205	2	45	13	337	2	1	92	2	61	4,037	5,865	

All profiles are presented in the following order: Isoniazid, Rifampicin, Ethambutol, Pyrazinamide, with S indicating susceptibility and R indicating resistance.

S6

Result for isolates with full phenotypic drug profiles:

	Resistant phenotype, n (%)					Susceptible phenotype, n (%)					PPV, (%)	NPV, (%)	Sensitivity (predictions only) (%)	Sensitivity (all) (%)	Specificity (predictions only) (%)	Specificity (all) (%)	No genotypic prediction made, (%)	Resistance prevalence (all) (%)	Resistance prevalence (predictions only) (%)
	R	S	U	F	Total	R	S	U	F	Total									
All isolates																			
Isoniazid	2,214	65	70	34	2,383	30	4,848	147	108	5,133	98.7	98.7	97.1	92.9	99.4	94.4	4.8	31.7	31.8
Rifampicin	1,852	51	3	61	1,967	70	5,213	133	133	5,549	96.4	99.0	97.3	94.2	98.7	93.9	4.4	26.2	26.5
Ethambutol	1,038	47	61	39	1,185	397	5,263	611	60	6,331	72.3	99.1	95.7	87.6	93.0	83.1	10.3	15.8	16.1
Pyrazinamide	795	81	110	74	1,060	173	5,989	188	106	6,456	82.1	98.7	90.8	75.0	97.2	92.8	6.4	14.1	12.4

Result for isolates with full phenotypic profiles for the collections that are not enriched for resistance:

Isoniazid	268	7	9	4	288	15	3,639	101	86	3,841	94.7	99.8	97.5	93.1	99.6	94.7	4.8	7.0	7.0
Rifampicin	91	0	0	8	99	28	3,794	100	108	4,030	76.5	100.0	100.0	91.9	99.3	94.1	5.2	2.4	2.3
Ethambutol	59	0	0	0	59	39	3,566	431	34	4,070	60.2	100.0	100.0	100.0	98.9	87.6	11.3	1.4	1.6
Pyrazinamide	99	6	4	5	114	26	3,917	14	58	4,015	79.2	99.8	94.3	86.8	99.3	97.6	2.0	2.8	2.6

S7

Drug profile predictions for collections from Germany, Italy, the Netherlands and the UK that are unenriched for resistance. Includes isolates with uncharacterised variants relevant to rifampicin, ethambutol or pyrazinamide.

Prediction	Genotypic drug profiles				Phenotype		Sensitivity %	Specificity %	PPV %	NPV %	Predictions made %
	Inh	Rif	Emb	Pza	Pan-susceptible	Some resistance					
(a) Predicted pan-susceptible	S	S	S	S	3,008	9					
(b) Predicted pan-susceptible after inferring that 'U' mutations are consistent with susceptibility in this context	S	S	S	U	9	0					
	S	S	U	S	331	2					
	S	S	U	U	2	0					
	S	U	S	S	64	0					
	S	U	U	S	25	0					
	Total				3,439	11					
(c) Predicted to have some phenotypic resistance	R	S	R or S		12	145					
	S	R or S			25	47					
	R	R	R or S		1	77					
	Total				38	269					
Results for (a) and (c)							96.8	98.8	87.6	99.7	80.5
Results for (a), (b) and (c)							96.1	98.9	87.6	99.7	91.0
No prediction made (incomplete prediction)	U	S or U			91	6					
	At least one F, no R				193	6					
	At least one R and U, no F				4	43					
	At least one R and F, no U				3	24					
	At least one R, U, and F				0	2					
	Total				291	81					

PPV = Positive Predictive Value; NPV = Negative Predictive Value; Inh=Isoniazid; Rif=Rifampicin; Emb=Ethambutol; Pza=Pyrazinamide; R=resistant; S=susceptible; U=mutation of unknown association present; F=genotypic prediction failed due to missing data around a genomic resistance locus. Sensitivity, specificity, NPV and PPV are calculated including and excluding predictions of pan-susceptibility for isolates containing a 'U' mutation.

S8

Isolates for which the phenotypes could be re-tested or cross-checked:

Source	Labnumber	Drug	Original reported phenotype	Mutation	Phenotype after re-testing	Results of cross-checking source database
University of Sydney	S2	Ethambutol	S	embB_G406D	Not growing	
University of Sydney	S3	Ethambutol	S	embB_M306V	R	
University of Sydney	S7	Ethambutol	S	embB_M306V	R	
University of Sydney	S8	Ethambutol	S	embB_M306I	R	
University of Sydney	S11	Ethambutol	S	embB_M306I, embB_G406S	R	
University of Sydney	S15	Ethambutol	S	embB_M306I	S	
University of Sydney	S20	Ethambutol	S	embB_M306V	Contaminated with Bacillus	
University of Sydney	S23	Ethambutol	S	embB_G406D	Could not be tested	
University of Sydney	S30	Ethambutol	S	embB_D354A	R	
University of Sydney	S33	Ethambutol	S	embB_M306V	R	
University of Sydney	S41	Ethambutol	S	embB_G406A	R	
Harvard	NLA000016764	Ethambutol	R			Clerical error - no phenotype was done for Ethambutol
Harvard	NLA000801694	Isoniazid	R			Clerical error - was tested as susceptible
Harvard	NLA000801697	Isoniazid	R			Clerical error - was tested as susceptible
Harvard	NLA000801694	Rifampicin	R			Clerical error - was tested as susceptible
Harvard	NLA000801697	Rifampicin	R			Clerical error - was tested as susceptible
Netherlands	NL491	Ethambutol	R			Clerical error - this was reported as susceptible by MGIT, resistant by MIC plate (10 mg/l)
Netherlands	NL294	Ethambutol	S	embB_M306I		Susceptible by MGIT, resistant by MIC plate (10 mg/l)
Netherlands	NL241	Ethambutol	S	embB_M306V		Susceptible by MGIT, resistant by MIC plate (10 mg/l)
Netherlands	NL294	Pyrazinamide	S	pncA_F58L		Susceptible in MGIT at 100mh/l (x3) but resistant at 25mg/l (x1) and 50mg/l (x1), therefore can be considered intermediate
Peru	14722_6_10	Rifampicin	R		S	
Peru	14722_6_13	Isoniazid	S	fabG1_C-15T	S	
Peru	14722_6_21	Isoniazid	R		S	
Peru	14722_6_36	Rifampicin	S	rpoB_D435F	R	
Peru	14722_6_38	Isoniazid	S	fabG1_C-15T	S	
Peru	14722_6_41	Rifampicin	S	rpoB_D435F	R	
Peru	14722_6_59	Isoniazid	S	fabG1_G-17T	S	
Peru	14722_6_86	Isoniazid	S	fabG1_C-15T	S	
Peru	14892_2_37	Rifampicin	S	rpoB_D435V	R	
Peru	14892_2_59	Isoniazid	S	fabG1_G-17T	S	
Peru	14893_2_23	Isoniazid	S	fabG1_C-15T	S	
Peru	14893_2_45	Isoniazid	S	fabG1_C-15T	S	
Peru	14893_2_48	Isoniazid	S	fabG1_C-15T	S	
Peru	14893_2_52	Isoniazid	S	fabG1_G-17T	S	
Peru	14893_2_64	Isoniazid	R		R	
Peru	15277_3_57	Isoniazid	S	fabG1_C-15T	S	

Performance over whole data set of variants consistent with susceptibility that were present in phenotypically resistant isolates. Variants only shown where they feature as the only variant relevant to a drug in an isolate

Drug	Variant	Phenotypically resistant	Phenotypically susceptible
Isoniazid	ahpC_C-52T	1	0
Isoniazid	fabG1_S126N	1	5
Isoniazid	inhA_C-40T	1	208
Isoniazid	katG_C-85T	3	63
Isoniazid	katG_T475I	1	10
Ethambutol	embA_G-43C	3	4
Ethambutol	embB_D1024N	5	5
Ethambutol	embB_D328H	2	3
Ethambutol	embB_E504D	2	0
Ethambutol	embB_G-6A	1	26
Ethambutol	embB_H1002R	7	7
Ethambutol	embB_Q497P	2	3
Ethambutol	embB_T1082A	1	18
Ethambutol	embC_A774S	1	29
Pyrazinamide	pncA_D63A	2	0

Performance over whole data set of resistance variants that were found in susceptible isolates. Variants only counted where they feature as the only resistant-variant relevant to a drug in an isolate

Drug	Variant	Phenotypically resistant	Phenotypically susceptible
Isoniazid	fabG1_C-15T	228	21
Isoniazid	fabG1_G-17T	7	3
Isoniazid	fabG1_L203L	55	28
Isoniazid	fabG1_T-8A	7	3
Isoniazid	fabG1_T-8C	4	1
Isoniazid	inhA_I21T	1	1
Isoniazid	inhA_S94A	4	3
Isoniazid	katG_1438_indel	0	1
Isoniazid	katG_2005_indel	2	1
Isoniazid	katG_606_indel	0	1
Rifampicin	rpoB_D435A	0	1
Rifampicin	rpoB_D435F	8	2
Rifampicin	rpoB_D435G	2	2
Rifampicin	rpoB_D435V	181	2
Rifampicin	rpoB_D435Y	29	13
Rifampicin	rpoB_D545E	0	3
Rifampicin	rpoB_H445N	9	10
Rifampicin	rpoB_H445R	24	1
Rifampicin	rpoB_H445Y	141	2
Rifampicin	rpoB_I491F	40	7
Rifampicin	rpoB_L430P	12	22
Rifampicin	rpoB_L452M	0	1
Rifampicin	rpoB_L452P	39	9
Rifampicin	rpoB_M434I	1	0
Rifampicin	rpoB_Q432P	6	1
Rifampicin	rpoB_S450W	56	1
Rifampicin	rpoB_V359A	0	2
Ethambutol	embA_C-12T	28	24
Ethambutol	embA_C-16G	22	3
Ethambutol	embA_C-16T	12	7
Ethambutol	embB_D328Y	8	2
Ethambutol	embB_D354A	107	93
Ethambutol	embB_G406A	53	21
Ethambutol	embB_G406D	36	38
Ethambutol	embB_G406S	19	3
Ethambutol	embB_M306I	320	130
Ethambutol	embB_M306L	26	10
Ethambutol	embB_M306V	512	98
Ethambutol	embB_Q497K	15	6
Ethambutol	embB_Q497R	122	28
Pyrazinamide	pncA_-30_indel	0	1
Pyrazinamide	pncA_-3_indel	0	3
Pyrazinamide	pncA_-5_indel	7	4
Pyrazinamide	pncA_-79_indel	1	1
Pyrazinamide	pncA_-868_indel	0	1
Pyrazinamide	pncA_189_indel	0	1
Pyrazinamide	pncA_193_indel	2	1
Pyrazinamide	pncA_220_indel	0	1
Pyrazinamide	pncA_256_indel	1	1
Pyrazinamide	pncA_303_indel	0	1
Pyrazinamide	pncA_382_indel	1	1
Pyrazinamide	pncA_386_indel	3	1
Pyrazinamide	pncA_391_indel	19	1
Pyrazinamide	pncA_407_indel	4	1
Pyrazinamide	pncA_408_indel	1	2
Pyrazinamide	pncA_417_indel	3	1
Pyrazinamide	pncA_478_indel	0	1
Pyrazinamide	pncA_501_indel	0	1
Pyrazinamide	pncA_62_indel	0	1
Pyrazinamide	pncA_80_indel	0	1
Pyrazinamide	pncA_A-11G	38	14
Pyrazinamide	pncA_A102P	3	1
Pyrazinamide	pncA_A134V	4	1
Pyrazinamide	pncA_A143D	1	1
Pyrazinamide	pncA_A146T	1	1
Pyrazinamide	pncA_A171E	0	1
Pyrazinamide	pncA_A171T	1	5
Pyrazinamide	pncA_A46V	2	1
Pyrazinamide	pncA_C14R	6	2
Pyrazinamide	pncA_D12A	4	9
Pyrazinamide	pncA_D12E	2	1
Pyrazinamide	pncA_D12G	3	1
Pyrazinamide	pncA_D136N	0	2
Pyrazinamide	pncA_D49G	3	1
Pyrazinamide	pncA_D63G	0	4
Pyrazinamide	pncA_D63H	1	1

Pyrazinamide pncA_D8G	6	1
Pyrazinamide pncA_D8N	2	1
Pyrazinamide pncA_F13V	0	2
Pyrazinamide pncA_F58L	3	3
Pyrazinamide pncA_F81S	0	2
Pyrazinamide pncA_F81V	0	2
Pyrazinamide pncA_F94C	2	1
Pyrazinamide pncA_F94L	2	3
Pyrazinamide pncA_G108R	2	1
Pyrazinamide pncA_G124S	0	1
Pyrazinamide pncA_G132A	4	2
Pyrazinamide pncA_G17D	1	1
Pyrazinamide pncA_G24D	4	1
Pyrazinamide pncA_G78C	0	1
Pyrazinamide pncA_G97D	24	4
Pyrazinamide pncA_H51R	12	1
Pyrazinamide pncA_H57D	70	3
Pyrazinamide pncA_H71R	2	4
Pyrazinamide pncA_H71Y	17	3
Pyrazinamide pncA_I31T	0	1
Pyrazinamide pncA_I5T	0	1
Pyrazinamide pncA_K48E	1	1
Pyrazinamide pncA_K48T	6	8
Pyrazinamide pncA_K96Q	0	2
Pyrazinamide pncA_K96R	8	2
Pyrazinamide pncA_L116P	2	1
Pyrazinamide pncA_L151S	8	4
Pyrazinamide pncA_L172P	5	1
Pyrazinamide pncA_L182S	1	3
Pyrazinamide pncA_L19P	3	1
Pyrazinamide pncA_L27P	4	2
Pyrazinamide pncA_L35P	2	4
Pyrazinamide pncA_L4S	20	5
Pyrazinamide pncA_L4W	1	3
Pyrazinamide pncA_L85P	3	1
Pyrazinamide pncA_L85R	5	2
Pyrazinamide pncA_M175I	0	2
Pyrazinamide pncA_M175V	4	2
Pyrazinamide pncA_P54L	19	3
Pyrazinamide pncA_P62S	1	3
Pyrazinamide pncA_P69S	0	1
Pyrazinamide pncA_S104R	3	2
Pyrazinamide pncA_S65P	0	1
Pyrazinamide pncA_S67P	8	1
Pyrazinamide pncA_T135I	0	1
Pyrazinamide pncA_T135P	15	1
Pyrazinamide pncA_T135S	0	1
Pyrazinamide pncA_T142M	3	1
Pyrazinamide pncA_T168S	0	2
Pyrazinamide pncA_T47A	1	3
Pyrazinamide pncA_T47I	0	2
Pyrazinamide pncA_V125F	0	2
Pyrazinamide pncA_V128G	9	2
Pyrazinamide pncA_V139A	8	8
Pyrazinamide pncA_V139G	5	1
Pyrazinamide pncA_V139L	2	1
Pyrazinamide pncA_V21A	0	1
Pyrazinamide pncA_V7A	0	1
Pyrazinamide pncA_V7F	2	1
Pyrazinamide pncA_V7G	13	2
Pyrazinamide pncA_V7L	1	1
Pyrazinamide pncA_W119R	2	2
Pyrazinamide pncA_W68G	14	1
Pyrazinamide pncA_W68R	6	1
Pyrazinamide pncA_Y103*	12	2
Pyrazinamide pncA_Y41*	0	1

S10

For each of isoniazid and rifampicin, calculate the expected mislabelling rate based on isolates with mutations (rpoB S450L or katG S315T) but a susceptible phenotype. For these calculations, the collection from Russia was excluded for isoniazid as the katG S315T mutations with a susceptible phenotype had already been excluded at source (in a previous publication). The isolates included below include all those that were excluded from the main analysis after being identified as likely mislabelling errors.

Expected:
 (Total number of isolates with a susceptible phenotype x number with the mutation and a susceptible phenotype) / (sum of isolates with the mutation) x ((1-prevalence of resistance)/prevalence of resistance)

The ratio of expected to observed errors was then taken as the proportion of discrepant isolates likely to be due to mislabelling

Drug	Source (see S1)	Phenotypes			Where a katG_S315T or rpoB_S450L mutation is present		Among the susceptible phenotypes		Errors (predicted resistant but phenotypically susceptible)		Ratio (expected / observed)
		Resistant	Susceptible	Prevalence of resistance	Resistant phenotype	Susceptible phenotype	Predicted susceptible	Predicted resistant	Expected errors	Observed errors	
Isoniazid	University of Sydney	42	0	100.00	31	0	0	0	.	0	
Rifampicin	University of Sydney	38	4	90.48	21	0	4	0	0.00	0	
Isoniazid	Genoscreen (isolates from Belgium)	100	135	42.55	86	0	127	0	0.00	0	
Rifampicin	Genoscreen (isolates from Belgium)	98	137	41.70	74	0	128	1	0.00	1	
Isoniazid	Birmingham	259	3,115	7.68	168	9	2,953	19	13.17	19	
Rifampicin	Birmingham	100	3,295	2.95	58	1	3,088	29	1.69	29	
Isoniazid	British Columbia Centre for Disease Control	189	1,152	14.09	70	0	1,080	19	0.00	19	
Rifampicin	British Columbia Centre for Disease Control	38	1,304	2.83	18	0	1,208	4	0.00	4	
Isoniazid	Hamburg	23	253	8.33	17	2	241	6	2.42	6	
Rifampicin	Hamburg	15	261	5.43	12	0	254	3	0.00	3	
Isoniazid	Italy	130	0	100.00	121	0	0	0	.	0	
Rifampicin	Italy	128	2	98.46	91	0	2	0	0.00	0	
Isoniazid	Italy_MGITstudy	11	84	11.58	7	0	74	0	0.00	0	
Rifampicin	Italy_MGITstudy	4	91	4.21	2	0	79	0	0.00	0	
Isoniazid	Leeds	3	28	9.68	3	0	25	0	0.00	0	
Rifampicin	Leeds	3	28	9.68	3	0	25	0	0.00	0	
Isoniazid	London	358	21	94.46	312	0	17	0	0.00	0	
Rifampicin	London	350	23	93.83	248	0	20	0	0.00	0	
Isoniazid	Harvard (isolates from the Netherlands)	302	38	88.82	218	1	34	1	1.38	1	
Rifampicin	Harvard (isolates from the Netherlands)	292	47	86.14	171	1	38	8	1.70	8	
Isoniazid	Netherlands	36	484	6.92	33	1	456	2	1.06	2	
Rifampicin	Netherlands	14	514	2.65	13	0	490	2	0.00	2	
Isoniazid	Oxford	6	29	17.14	2	0	23	0	0.00	0	
Rifampicin	Oxford	2	33	5.71	2	0	30	0	0.00	0	
Isoniazid	Pakistan	357	62	85.20	273	3	54	5	3.88	5	
Rifampicin	Pakistan	352	67	84.01	201	1	57	8	1.74	8	
Isoniazid	Peru	85	32	72.65	78	2	18	12	2.13	12	
Rifampicin	Peru	64	53	54.70	40	0	45	4	0.00	4	
Isoniazid	Serbia	107	0	100.00	85	0	0	0	.	0	
Rifampicin	Serbia	107	0	100.00	59	0	0	0	.	0	
Isoniazid	Yang et. al. Lancet Infect Dis. 2017 Mar;17(3):275-284 (isolates from China)	121	0	100.00	102	0	0	0	.	0	
Rifampicin	Yang et. al. Lancet Infect Dis. 2017 Mar;17(3):275-284 (isolates from China)	121	0	100.00	72	0	0	0	.	0	
Isoniazid	South Africa	197	701	21.94	110	7	655	13	11.79	13	
Rifampicin	South Africa	337	670	33.47	182	2	629	12	3.66	12	
Isoniazid	Spain	13	51	20.31	7	0	50	0	0.00	0	
Rifampicin	Spain	10	54	15.63	7	0	52	0	0.00	0	
Isoniazid	MSF (isolates from Swaziland)	137	136	50.18	115	0	121	8	0.00	8	
Rifampicin	MSF (isolates from Swaziland)	120	146	45.11	57	0	143	2	0.00	2	
Isoniazid	Thailand	199	58	77.43	157	1	53	1	1.26	1	
Rifampicin	Thailand	196	61	76.26	89	0	56	1	0.00	1	
Isoniazid	Zhang et. al. Nat Genet. 2013 Oct;45(10):1255-60 (isolates from China)	117	44	72.67	65	0	40	0	0.00	0	
Rifampicin	Zhang et. al. Nat Genet. 2013 Oct;45(10):1255-60 (isolates from China)	117	44	72.67	56	0	43	1	0.00	1	
Totals									Expected	Observed	Ratio (%)
Isoniazid									37.08	86	43.12
Rifampicin									8.80	75	11.73

Isolates from Russia (from Casali et. al. Nat Genet. 2014 Mar;46(3):279-86) were excluded from the calculation as isolates with a katG_S315T mutation and a susceptible phenotype for isoniazid were excluded from the publication from which these isolates were derived.