Ethambutol supplementary data

Table S1: *embB* codon mutation frequency in this study and among global isolates

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| This study | | | | | Global isolates [26] | |
| Codon | EMBR (n=61) | EMBS (n=71) | Total (n=132) | Proportion | Absolute number | Proportion (n=7294) |
| Codon 306 | 45 | 37 | 82 | 62.1 | 3491 | 47.9 |
| Codon 497 | 3 | 3 | 6 | 4.5 | 583 | 8.0 |
| Codon 406 | 1 | 5 | 6 | 4.5 | 828 | 11.4 |
| Codon 402 | 1 | 1 | 2 | 1.5 |  |  |
| Codon 319 | 1 | 1 | 2 | 1.5 |  |  |
| Codon 328 | 1 | 0 | 1 | 0.8 |  |  |
| Codon 405 | 1 | 0 | 1 | 0.8 |  |  |
| Codon 409 | 1 | 0 | 1 | 0.8 |  |  |
| *embB* locus | 53 | 47 | 100 | 75.8 |  |  |

R=resistant, S-susceptible

Table S2: Association of *embB* mutations with MDR-TB genotypes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| genotype | *embB* mutations | *embB* no mutations | Odds ration | 95%CI | p value |
| CAS1\_Kili | 33 | 1 | 15.27 | 15.3-116.8 | 0.0086 |
| LAM | 41 | 26 | 0.16 | 0.06-0.42 | 0.0002 |
| H | 6 | 0 | 4.47 | 0.25-81.58 | 0.31 |
| T | 13 | 3 | 1.44 | 0.38-5.43 | 0.59 |
| X | 4 | 2 | 0.625 | 0.11-3.58 | 0.60 |
| EAI | 2 | 0 |  |  |  |
| S | 1 | 0 |  |  |  |

Table S3: Correlation of *embB* mutations and EMB phenotype DST by MGIT M960

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Codon/Locus | EMB resistant (n=61) | | EMB susceptible (n=71) | | Sensitivity | specificity | Accuracy |
| Mutation | No mutation | Mutation | No mutation |
| Codon 306 | 45 | 16 | 37 | 34 | 73.8 | 47.9 | 59.8 |
| Codon 497 | 3 | 58 | 3 | 68 | 4.9 | 95.8 | 53.8 |
| Codon 406 | 1 | 60 | 5 | 66 | 1.6 | 93.0 | 50.8 |
| Codon 402 | 1 | 60 | 1 | 70 | 1.6 | 98.6 | 53.8 |
| Codon 319 | 1 | 60 | 1 | 70 | 1.6 | 98.6 | 53.8 |
| Codon 328 | 1 | 60 | 0 | 71 | 1.6 | 100.0 | 54.5 |
| Codon 405 | 1 | 60 | 0 | 71 | 1.6 | 100.0 | 54.5 |
| Codon 409 | 1 | 60 | 0 | 71 | 1.6 | 100.0 | 54.5 |
| *embB* locus | 53 | 8 | 47 | 24 | 86.9 | 33.8 | 58.3 |