Spatial clustering and Genetic Diversity of *Mycobacterium Tuberculosis* Isolate among Pulmonary Tuberculosis Suspected Patients, Arsi Zone, Ethiopia.

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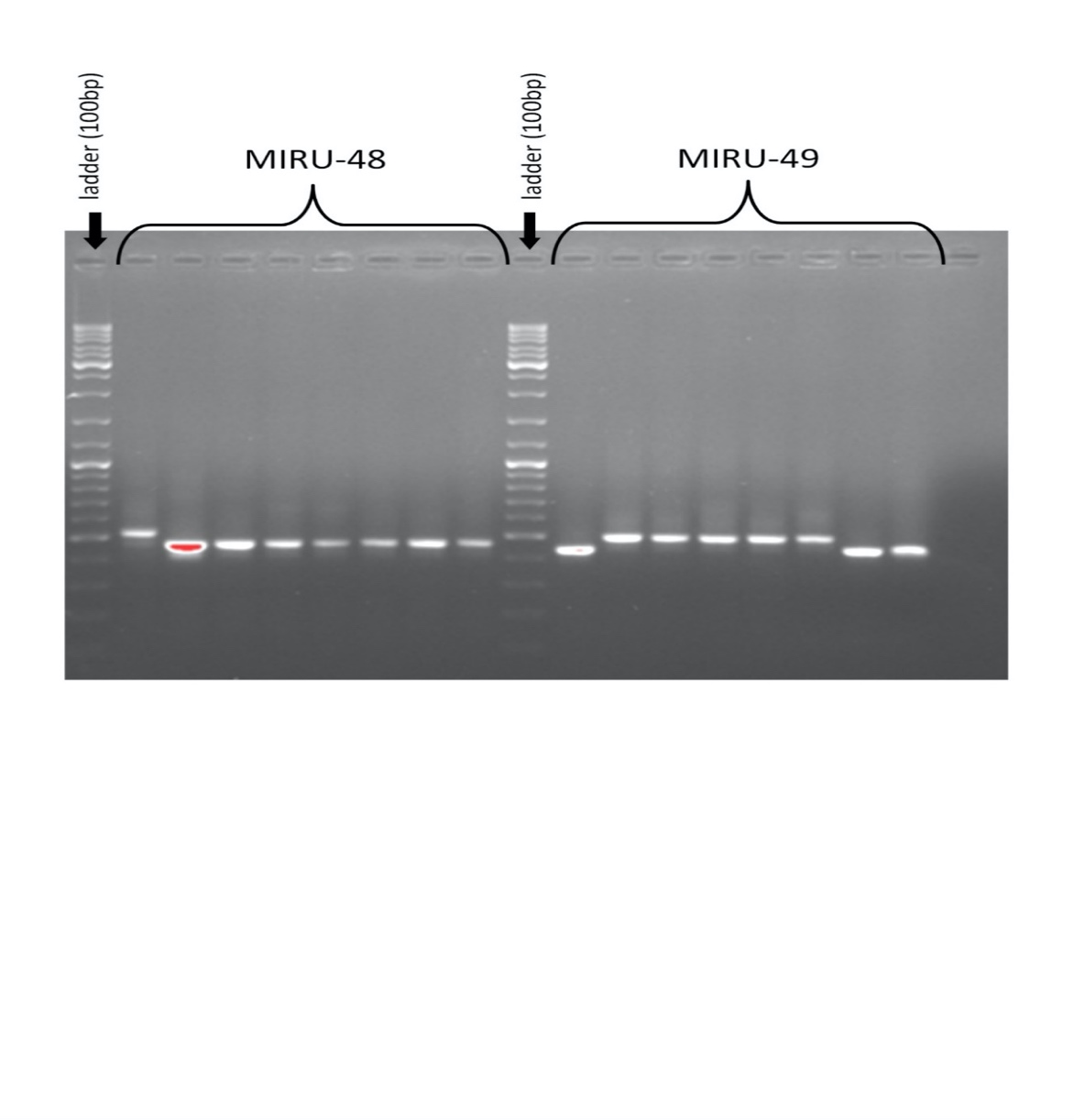
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**PCR based MIRU-VNTR**

PCR product of each locus was electrophoresed from eight samples per batch to increase the accuracy of recalling copy numbers of each allele. The approach enhanced the detection of the diversity of specific loci among the samples. Distinct bands of the electrophoresed loci were observed for each locus. The PCR reactions were repeated for the unsuccessful QUB-26 locus by including 1% Dimethyl Sulfoxide **(**DMSO) in the reaction mix.



**Suplementary figure-1**: The gel-photo of the two loci (MIRU-48 (2461) and MIRU-49 (3171)) each electrophoresed for 8 samples per batch. The electrophoresis of several samples of the same loci at time enhanced the easy detection of homogeneous and heterogeneous alleles from a different sample.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sublineages** | **Woreda/Districts** | | | | | | | | | | | | | **Total** |
| **Amigna** | **Chole\*** | **Degeluna Tijo** | **Diksis\*** | **Hetossa** | **Jeju\*** | **Limu Bilbilo** | **Munessa** | **Robe\*** | **Seru\*** | **Shirka\*** | **Sire** | **Tiyo** |  |
| Delhi/CAS |  |  | 3 (18.8) | 2 (12.5) | 2 (12.5) |  |  |  | 1 (6.3) | 1 (6.3) | 2 (12.5) |  | 5 (31.3) | 16 (100.  0) |
| EAI |  |  |  |  |  |  |  | 1 (100.0) |  |  |  |  |  | 1 (100.0) |
| Haarmen |  | 1 (6.7) | 3 (20.0) | 1 (6.7) | 3 (20.0) | 1 (6.7) | 1(6.7) | 2 (13.3) |  |  |  |  | 3 (20.0) | 15 (100.0) |
| LAM |  |  |  | 1 (16.7) | 1 (16.7) | 1 (16.7) |  |  | 2 (33.3) |  |  |  | 1 (16.7) | 6 (100.0) |
| NEW-1 |  |  | 2 (50.0) |  |  | 1(25.0) |  |  |  |  |  |  | 1 (25.0) | 4 (100.0) |
| TUR |  |  | 4 (30.8) | 2(15.4) | 2(15.4) |  | 2(15.4) |  |  |  |  | 1 (7.7) | 2 (15.40 | 13 (100.0) |
| URAL |  |  | 2 (50.0) |  | 1(25.0) |  |  |  |  |  |  |  | 1 (25.0) | 4 (100.0) |
| Unknown | 1 (7.7) |  | 2 (15.4) |  | 3 (23.1) |  | 1 (7.7) | 1 (7.7) | 1 (7.7) |  |  |  | 4 (30.8) | 13 (100.0) |
| Total | 1(1.4) | 1 (1.4) | 16 (22.2) | 6 (8.3) | 12 (16.7) | 3 (4.2) | 4 (5.6) | 4 (5.6) | 4 (5.6) | 1 (1.4) | 2 (2.8) | 1 (1.4) | 17 (23.6) | 72 (100.0) |

**Supplementary table 1**: The distribution of mycobacterial sub-lineages across various districts of Arsi zone (N=72)

\*The marked are districts with the most likely high rates of smear positive TB clusters