

## عنوان مقاله:

Introducing the Best Six Loci in Mycobacterial Interspersed Repetitive Unit-Variable-Number Tandem Repeat (MIRU-VNTR) Typing for Mycobacterium Tuberculosis Genotyping

## محل انتشار:

مجله گزارش های بیوشیمی و زیست شناسی مولکولی، دوره 8، شماره 3 (سال: 1398)

تعداد صفحات اصل مقاله: 12

## نویسندگان:

Mahdis Ghavidel - *Antimicrobial Resistance Research Center, Mashhad University of Medical Sciences, Mashhad, Iran. & Department of Microbiology and Virology, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran*

Keyvan Tadayon - *Department of Microbiology, Razi Vaccine and Serum Research Institute (RVSRI), Agricultural Research, Education and Extension Organization (AREEO), Karaj, Iran*

Nader Mosavari - *PPD Tuberculin Department, Razi Vaccine and Serum Research Institute, (RVSRI), Agricultural Research, Education and Extension Organization (AREEO), Karaj, Iran*

Kimiya Nourian - *Doctor of Veterinary Medicine, Graduate Student of School of Veterinary Medicine, Ferdowsi University of Mashhad, Mashhad, Iran*

Hamid Reza Bahrami Taghanaki - *School of Persian Medicine, Mashhad University of Medical Sciences, Mashhad, Iran*

Gholam Reza Mohammadi - *Department of Clinical Sciences, School of Veterinary Medicine, Ferdowsi University of Mashhad, Mashhad - Iran*

Mohammad Rashtibaf - *Deputy of Veterinary administration of Khorasan Razavi Province, Mashhad, Iran*

Kiarash Ghazvini - *Antimicrobial Resistance Research Center, Mashhad University of Medical Sciences, Mashhad, Iran. & Department of Microbiology and Virology, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran*

## خلاصه مقاله:

Background: Tuberculosis (TB) still remains endemic worldwide making epidemiological studies essential to mitigating efforts implicated in identifying its source, controlling, and preventing the spread of dangerous strains amongst humans such as Mycobacterium tuberculosis (Mtb). Methods: In this study, we sought to determine the 6 Mycobacterial Interspersed Repetitive Unit-Variable-Number Tandem Repeat (MIRU-VNTR) loci with high discriminatory powers for Mtb genotyping as well as the loci with the highest and the lowest discriminatory powers for MIRU-VNTR. To conduct our search, we used several databases such as science direct, Embase (Elsevier), Web of Science, Scopus and Medline via PubMed. Searches were performed using key words including: Mycobacterium tuberculosis, MIRU-VNTR, Allele diversity, Genetic diversity and human patient. Finally, 56 articles were selected

after filtering out titles, abstracts and full texts. Results: Loci with high discriminatory powers included MIRU10 and MIRU26, while MIRU2, MIRU20, MIRU24 and ETRD had poor discriminatory powers. According to previous data in the literature, the loci MIRU10, MIRU26, MIRU40, QUB 26, QUB 11b and Mtub21 have high discriminatory powers. Conclusions: Therefore, these loci recommended for genotyping Mtb to save time and cost and to ensure the production of reliable results.

## کلمات کلیدی:

Discriminatory power, Genotyping, MIRU-VNTR, Mycobacterium tuberculosis

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1141922>

