



Spoligotyping

Mycobacterium tuberculosis complex

BMX-TB43 (43 spacers) BMX-TB68 (68 spacers)

« Spoligotyping » (tuberculosis bacilli Direct Repeat or CRISPR genotyping) has more than 750 bibliographical references on PubMed between 1997 and 2013. Invented in 1997 at the RIVM in the Netherlands, the original technique on membrane (reverse line-blot hybridization), was transferred to a microbeads format in the CDC in 2004. Beamedex® is in Europe the expert in CRISPR loci typing on microbeads and a partner of Luminex®. We propose both custom genotyping services as well as are selling oligonucleotide-coupled microbeads, whether polystyrene ou paramagnetic, to run CRISPR typing techniques to prevent infectious diseases spreading on Luminex devices. We also supply training to data-analysis and interpretation softwares. Contact us for a quote or any specific request. Our dedicated team will be happy to answer you.

Advantages

- Fast (2h)
- High throughput (96 well plates)
- Internal controls (H37Rv, *M. bovis* BCG)
- Universaly admitted technique
- World-wide database system for nomenclature of clusters (SIT=Spoligotyping-international-type)
- Numerical results (easily shared on the web)
- Training and Expert technical support

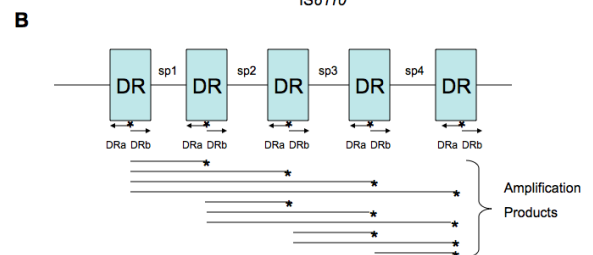
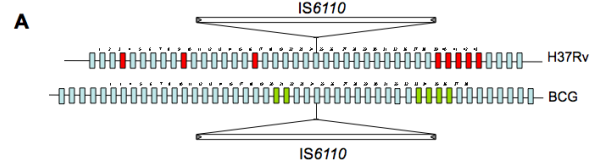
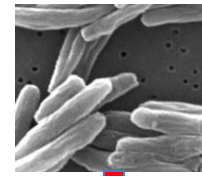
Applications, References

- Study of nosocomial transmission of tuberculosis as first line technique followed by 24VNTR typing
- Cross-contamination studies
- Studies of genetic diversity of *Mycobacterium tuberculosis* in any setting.
- Molecular epidemiological studies (in high burden countries) as first line technique followed by 24VNTR typing
- 757 references on PubMed on Feb.1st 2013

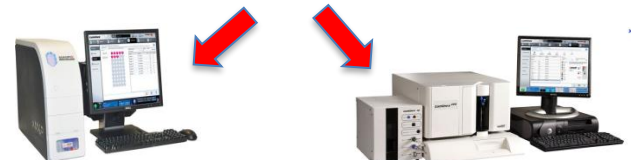
Kit Composition

- Positive control DNA (H37Rv, *M. bovis* BCG P3)
- Biot-DRa, DRb primers to amplify *M. tuberculosis* complex CRISPR
- Oligonucleotide-coupled Luminex® microbeads mixed, including 43 or 68 targets (polystyrene xMAP® or magnetic MagPlex®).
- Total quantity of microbeads necessary as per request for 100, 250 and 500 assays (depending on your reading device; less beads needed on the MagPix®)
- Streptavidin-Phycoerythrin (SA-PE)
- dNTPs

DNA Extraction (from biological samples or culture..)



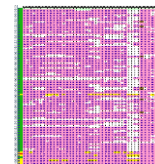
Hybridization on microbeads, detection



Magpix®
MagPlex® beads

Luminex 200
xMAP® beads

**Numerical
Result**



**Computerized
data
management**

