One-third of the world population is thought to have been infected with M. tuberculosis, with the disease claiming upwards of 1.5 million lives annually (WHO) – and the increase in multi-drug resistant strains of TB (MDRTB) is increasing mortality rates. The need for new, potent, robust drug intervention is urgent.

CDI Laboratories offers the Mycobacterium Tuberculosis Proteome Microarray featuring 4,262 full-length recombinant proteins encompassing >95% of the MTB proteome – a powerful, high-throughput analytical tool.

Explore:
- protein-protein interactions
- small molecule-protein binding
- serum profiling (patient/population)

Microarray Characteristics and Applications >>

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MTB Microarray Characteristics

• 4262 full-length recombinant proteins
• 3829 proteins are derived from the H37Rv reference strain and 433 from the pathogenic strain CDC1551
• Genome coverage > 95%
• Yeast expression system ensures soluble expression of proteins
• GST tags are used, ensuring highly-specific purification
• Array-It™ contact point needle; 120 μm high-density microspotting system

Research Applications

• Protein - protein interactions: infection, immunity and resistance mechanisms, construction of signaling pathways
• Protein - nucleic acid interactions: gene regulation / protein function
• Protein - small molecule interactions: signal regulation; drug target screening
• Protein - lipid interactions: infection, drug resistance and other mechanisms, regulation of lipid metabolism
• Protein microarray-based enzymology research: protein function, signal regulation
• Antibody evaluation: antigen identification, specificity validation, application optimization

Clinical Applications

• Identify new, reliable diagnostic markers
• Monitor development and progression of tuberculosis and TB-related diseases:
  > Active and latent pulmonary TB
  > Extrapulmonary TB, TB meningitis
  > HIV co-infection/diabetic infectious TB markers
  > Multi-stage TB: latent, active, and post-recovery
  > Various types of TB in children
  > TB in different geographic regions / ethnic groups
  > Other types of TB

For more information, including pricing, please call us at 787.806.4100 or visit us on line at cdi-lab.com.