

“IS IT MYCOBACTERIUM TUBERCULOSIS DORMANCY REGULON PROTEIN 2623 AS A POTENTIAL MARKER FOR LATENT TUBERCULOSIS INFECTION: A PRELIMINARY STUDY”

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In the world one third population is infected with Mycobacterium tuberculosis (M.tuberculosis). Latent tuberculosis (TB) identification is a key component of which helps to control or eliminate TB. Dormancy regulon proteins of mycobacteria are up regulated in response to various environmental stresses during infection in immunocompetent host. Over the past few decades, analyses of TB biomarkers have attracted attention with respect to a variety of TB infections. With the increased interest in and improved technical capabilities of clinical proteomics, comparative investigations with respect to differential protein expression has become more common than ever before for diagnosis and also for prognostic assessment of disease states. In the present study, detailed maps of the serum proteins in active TB (AFB and or culture positive), latent TB patients (QFT and/or TST positive) and healthy control were generated by two-dimensional electrophoresis. One of the identified Mycobacterium tuberculosis dormancy regulon proteins Rv 2623 was evaluated in serum samples of subjects with latent and active tuberculosis in a high TB prevalence area by the Indirect ELISA method to check its diagnostic efficacy. The mean O.D. for dormancy regulon protein in latent tuberculosis subjects was significantly higher than in the active subjects

with significant P value of 0.0001. Preliminary study indicates that the dormancy regulon protein is more specific to latency and could be considered as a diagnostic marker for latent tuberculosis infection.