

## **Reproducibility of Immuno-Dot Blot Assay for Diagnosis of Tuberculosis using M. tuberculosis Hsp 65 KDa Protein**

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### **ABSTRACT**

Studies had been attempted to define the mycobacterial antigens by standard biochemical and immunological techniques. One particular antigen, a 65-kilodalton (KDa) protein, is present in a wide range of mycobacterial species and has been most intensively studied. It is designated as 65K antigen or the cell wall protein a (CWP-a) antigen, since it appears to co-purify with cell walls. The 65K antigen is one of the major immunoreactive proteins of the mycobacteria. This antigen contains epitopes that are unique to a given mycobacterial species as well as epitopes that are common to various species of mycobacteria. The purified Hsp 65 KDa and monoclonal antibody against this antigen was used for immuno dot blot assay for detection of IgG against M. tuberculosis. Study with secondary conjugated IgG antibody and IgG Gold conjugate antibody the high prevalence of active TB/latent TB in the test population was observed i.e., 35 of the 104 subjects (33.65%) had active TB whereas for latent TB (21.15%). The positive and negative predictive values of anti-Hsp 65 IgG for active TB in a high-risk population were compared to determine patients with active TB showed sensitivity of anti-Hsp 65 IgG for active TB as 100% with 74% specificity.