

**“DESIGNING OF STS MARKERS FOR SEVERAL MYCOBACTERIUM SPECIES BY
USING AMPLIFIED 16S RIBOSOMAL DNA”**

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In order to diagnose several MOTT species such as *M. smegmatis* and *M. kansasii* along with *M. tuberculosis*, STS markers were designed for 16S rRNA gene conserved region. Designed primer sets were found to be specific for their target 16S regions of particular Mycobacterium species when tested in PCR. Using PCR methodology we have developed precise, sensitive Diagnosis methodology for MOTT species detection by obtaining variable banding patterns in gel electrophoresis. Along with that we have developed fast and inexpensive Mycobacterium genomic DNA isolation protocol which will reduce the cost of diagnosis. In conclusion, such a new methodology could be assisting in early diagnosis of particular MOTT species in clinical samples and will assist in referring specific medication to the patients by the clinician. Developed technology is sensitive and world accepted and further could be implemented to other MOTT species diagnosis in coming time.