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RAPID SPECIES IDENTIFICATION OF WILD MYCOBACTERIAL ISOLATES BY MONOCLONAL ANTIBODIES IN ELISA

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SUMMARY

An enzyme-linked immunosorbent assay (ELISA) for the identification of cultured mycobacteria belonging to the *Mycobacterium tuberculosis* complex and *Mycobacterium kansasii* originally described by R. Schöningh, C. P. J. H. Verstijnen, S. Kuijper and A. H. J. Kolk (1) was used for identification of mycobacteria from three week old primary cultures. A panel of six monoclonal antibodies (MoAbs) was used: two were specific for *Mycobacterium tuberculosis (M. tuberculosis)* complex, one for *M. kansasii*, one was directed against *M. avium* complex and two were broadly reacting with all mycobacterial species.

The ELISA was introduced to a microbiology laboratory located in an area where *M. kansasii* infections are endemic. All acid-fast bacteria isolated from sputum samples over one month period were identified by ELISA and culture. All fifteen *M. tuberculosis* isolates and all seventeen *M. kansasii* were correctly identified by ELISA before culture results were known. Two of three *M. avium* complex strains could be identified in ELISA as belonging to the *M. avium* complex using the *M. avium* complex specific monoclonal antibody.

Key words: ELISA, diagnosis, monoclonal antibodies, *M. tuberculosis* complex, *M. kansasii* endemic area

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