

**DETECTION OF WUCHERERIA BANCROFTI MICROFILARIAE IN HUMAN  
BLOOD SAMPLES USING A SPECIES - SPECIFIC DNA PROBE**

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The capacity of the EMBL3WB34 DNA probe<sup>1</sup> containing cloned repetitive sequence(s) specific for Wuchereria bancrofti to detect bancroftian microfilaraemia in human blood was investigated using the spot hybridization technique.

Serial dilutions of blood samples containing microfilariae were probed with <sup>32</sup>p-labeled EMBL3WB34. A dilution as low as one microfilaria in 60  $\mu$ l of blood could be detected by this probe. Similarly, serial dilutions of W. bancrofti DNA when probed with EMBL3WB34, showed that a minimum of 200 pg of parasite DNA was required to obtain a positive signal after a 20 hour exposure.

The probe EMBL3WB34 was able to detect the presence of bancroftian microfilariae in asymptomatic patients from different areas of Sri Lanka, which compared reasonably well with the microscopic estimation of microfilaraemia.

With the now known ability to enhance the sensitivity of DNA probes using the Polymerase chain reaction (PCR), i.e. the EMBL3WB34 probe has the potential to be developed as an efficient diagnostic tool for bancroftian filariasis.

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