

# Use of Dengue Blot IgG Test as an Epidemiological Tool for Assessing Incidence of DHF in Communities

By

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During 1990, the Blot IgG test for DHF serology, which was developed by Dr M. Jane D. Cardoso and marketed by M/s Diagnostic Biotechnology Ltd., Singa-pore, was further modified and standardized by Dupen Diagnostics Division. A field evaluation of this test kit was undertaken by the National Institute of Health Research and Development in collaboration with the DHF Control Programme. This paper presents the sensitivity and specificity of this kit.

One thousand specimens of acute and convalescent DHF cases were collected from four provincial health laboratories. The specimens were obtained from clinically suspected DHF patients who had been hospitalized in district hospitals. Sera samples were divided into two, and each set was tested by IgG blot for comparison with haemagglutinin test (HI). The results of the trials are summarized in Table.

**Table.** Result of the Dengue Blot test

	Positive	Negative	Total
Hi Test			
Positive	713	98	811
Negative	39	225	364
Total	752	323	1175

Sensitivity:  $713/752 = 94.8\%$   
Specificity:  $225/323 = 69.66\%$

From the results, it is apparent that the Blot test captured only the IgG antibodies which reflects that the patients had previous dengue infection, and hence can assay the incidence in the community. However, for detection of recent infection, it must be combined with Blot IgM. Addition of Blot IgM will not, however, make this test cost-effective.

## References

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