A HIGHLY SPECIFIC SUB-CLONE DERIVED FROM A HIGHLY REPEATED DNA SEQUENCE IN *SETARIA DIGITATA*

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We have previously reported[1] the isolation and characterization of highly repeated DNA sequence(s).EMBL3Sd41, from a genomic library of *Setaria digitata*. The EMBL3Sd41 was formed to be sensitive and species-specific.

Insert DNA of EMBL3Sd41 was cleaved with restriction enzyme sau 3A and fragments were subcloned into Bam H1 cleaved, dephosphorylated PUC 18. Number of positive recombinants were isolated by colony hybridizations. One clone, designated pSD14, was selected for further characterization. On cleaving with ECOR1 and Hind III PSD14 released an insert of approximate length 1.4 Kb.

Genomic DNA of *S. digitata* was cleaved with various restriction enzymes, southern blotted and was probed with ^{32}P labeled pSD14. Results showed that the fragment in pSD14 was highly reiterated in the *S. digitata* genome.

Sub-clone pSD14 was able to detect as low as 100 pg of *S. digitata* genomic DNA while the lower limit of detection by EMBL3Sd41 was 25 ng. Thus the pSd14 is more sensitive than EMBL3Sd41.

The sub-clone pSD14 could be used as a sensitive and species-specific DNA probe for detection of micro-filaria of *S. digitata* in Cattle, Buffalo, Sheep, Goat and in vector mosquito.

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References: 1. Dharmasena, S.P., Chandrasekharan, N.V. Karunanayake, E.H., Dissanayake, S. & Jayasekera, W. (1989). Cloning and Characterization of a highly repeated DNA sequence from *Setaria digitata*. Proc. Sri Lanka Assoc. Adv. Sci., *45*, Part I, 3.