

A PCR-Generated cDNA Probe for Detection of Sudanese Serogroup of Epizootic Hemorrhagic Disease Virus

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Abstract: A complementary DNA (cDNA) probe, derived from genome segment 6 (NS1) of epizootic hemorrhagic disease virus (EHDV) serotype 1 (EHDV-1), was synthesized by polymerase chain reaction (PCR) and evaluated for detection of Sudanese EHDV serogroup. A pair of primers (P1 and P2) was designed from NS1 genome segment of EHDV-1 and used for synthesis of a 387-bp cDNA probe. The cDNA probe hybridized with dsRNA from Sudanese EHDV serotypes including EHDV serotypes 4 and an untyped isolate designated (EHDV-318). However, dsRNA from blue tongue virus serotype 1, 2, 4 and 16 failed to hybridize with the cDNA probe. The result of this study indicated that, the developed cDNA probe could be used for rapid detection and differentiation of EHDV serogroup in cell culture.

Key words: EHDV, cDNA probe, Hybridization, Sudan