

Intraspecific varibility of corynespora cassiicola inferred from single nucleotide polymorphisms in ITS region of ribosomal DNA

ABSTRACT

Two single nucleotide polymorphisms (SNPs) were detected in the internal transcribed spacer region of the nuclear ribosomal DNA (rDNA-ITS) of 21 Corynespora cassiicola isolates obtained from a number of Hevea clones grown in rubber plantations in Malaysia. The two SNPs correlated with the physiological races of the isolates. Database searches yielded another 28 C. cassiicola isolates from diverse hosts and geographical regions. With this inclusion, a total of seven SNPs and two indels in the rDNA-ITS region were detected from all 49 C. cassiicola isolates. The knowledge of intraspecific variability (SNPs and indels) could prove useful in the delineation of physiological races or pathotypes of this fungus.

Keyword: Corynespora cassiicola; Hevea brasiliensis; ITS-rDNA region; Single nucleotide polymorphism