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*pel*B gene in isolates of *Colletotrichum gloeosporioides* from several hosts

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ABSTRACT. *Colletotrichum gloeosporioides* is an important pathogen for a great number of economically important crops. During the necrotrophic phase of infection by *Colletotrichum* spp, the degradative enzymes of plant cell walls, such as pectate lyase, clearly increase. A gene *pel*B that expresses a pectate lyase was identified in isolates of *C. gloeosporioides* in avocado pathogens. Various molecular studies have identified a kind of specialization of *C. gloeosporioides* isolates with specific hosts; however, there have been no studies of this gene in isolates from hosts other than avocado. The same is true for other species of *Colletotrichum*. We examined genetic variability in order to design primers that would amplify *pel*B gene fragments and compared the products of this amplification in *C. gloeosporioides* isolates from different hosts. Genetic variability was assessed using ISSR primers; the resultant data were grouped based on the UPGMA clustering method. Primers for the *pel*B gene were designed from selected GenBank sequences using the Primer 3 program at an annealing temperature of 60°C

and product amplification of nearly 600 bp. The ISSR primers were efficient in demonstrating the genetic variability of the *Colletotrichum* isolates and in distinguishing *C. gloeosporioides*, *C. acutatum* and *C. sublineolum* species. The gene *pel*B was found in *C. gloeosporioides*, *C. acutatum* and *C. sublineolum*. Amplified restriction fragments using *Msp*I did not reveal differences in *pel*B gene structure in isolates from the three different host species that we investigated.

Key words: *Colletotrichum*; CgInt; ISSR; *pel*B gene; Pectate lyase

