

Cloning transcripts encoding chitinases from *Elaies guineensis* Jacq. and their expression profiles in response to fungal infections

ABSTRACT

We have cloned three cDNAs encoding chitinases from oil palm, EgCHI1, EgCHI2, and EgCHI3. The abundance of transcripts encoding all three chitinases was relatively higher in oil palm root tissues treated with either *Ganoderma boninense* or *Trichoderma harzianum* singly compared to that of untreated oil palm root tissues at 5 week post inoculation (wpi). The expression of EgCHI1 and EgCHI2 was also up-regulated in oil palm roots treated with a combination of *G. boninense* and *T. harzianum* at 2, 5 and 8 wpi. The up-regulation of chitinases understudied was likely a universal response of host plant to fungal attack.

Keyword: Basal stem rot disease; Chitinase gene expression; *Ganoderma boninense*; Oil palm; Pathogenesis-related protein; *Trichoderma harzianum*