

A PHYTOHORMONE PRODUCED BY *Phytomonas* spp. ?

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The plant trypanosomatid *Phytomonas* spp. is associated to devastating diseases in commercially important crops, whereas no apparent damage is observed in other plant species. We obtained and characterized 2,190 ESTs of *P. serpens*, isolated from tomato. The consensus sequence of one contig showed high similarity with indolepyruvate decarboxylases (IPDCs) of phytobacteria, which in turn can be pathogenic and non-pathogenic to plants. This suggests the acquisition of *Phytomonas* IPDC gene by horizontal gene transfer from plant microorganisms. IPDCs are involved in the pathway for the conversion of tryptophan to indole-3-acetic acid (IAA) phytohormone. The complete IPDC gene was sequenced (1,657 bp ORF). PCR amplification showed IPDC is present in 14 *Phytomonas* isolates and absent in other kinetoplastid genera. IPDC is integrated in *P. serpens* genome, in approximately 10³ copies in tandem. Phylogenetic analyses of bacterial IPDCs and pyruvate decarboxylases from bacteria, fungi and plants clustered *P. serpens* gene with particular bacterial IPDCs (*P. putida*; *E. cloacae*; *P. agglomerans* and *E. carotovora*). Work is in progress to characterize IPDC activity in this organism as well as in pathogenic *Phytomonas*.

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