Isolation of alternative oxidase (AOX) genes of Olea europaea L.

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Abstract

Alternative oxidase (AOX) is recently suggested to be a potential candidate as functional marker for efficient cell reprogramming under stress (Arnholdt-Schmitt et al., 2006a). The presented work is part of a Marie Curie Chair project, that was established to investigate the potential role of the multigene AOX to assist breeding on efficient rooting of olive shoot cuttings (Arnholdt-Schmitt et al. 2006b). Plant mito-chondrial AOX is a small nuclear-encoded multigene family consisting of the two subfamilies AOX1 and AOX2. The intron-exon structure of AOX has been well characterized in several species, revealing a large degree of conservation. Here we report for the first time about the isolation of AOX multigene se-quences of olive (Olea europaea L.). The genes were isolated from a portuguese clone of the landrace ‘Galega vulgar’.

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