Sequence of the psbA gene from wild type triazin-resistant Nicotiana plumbaginifolia

Anikó Páy

Marvin A. Smith

Ferenc Nagy

László Márton

University of South Carolina - Columbia, martonl@mailbox.sc.edu

Follow this and additional works at: https://scholarcommons.sc.edu/biol_facpub

Part of the Biology Commons

Publication Info

Published in Nucleic Acids Research, Volume 16, Issue 16, 1988, pages 8176-.


DOI: 10.1093/nar/16.16.8176

© Nucleic Acids Research, 1988, Oxford University Press

The sequence of the chloroplast-encoded psbA gene from the wild type Nicotiana plumbaginifolia was compared to that of the TBR2 terbutrin-resistant mutant isolated from photomixotrophic cell cultures (1). Two nucleotides were found to have been changed in the mutant psbA gene. The change at position 791 results in a Ser-Asn amino acid substitution. The change at position 933 does not alter the amino acid sequence. The amino acid substitution described here is at the same position as in all psbA genes from triazin resistant mutants so far sequenced in higher plants (2, 3); however this is the first case when Serine is replaced by Asparagine.

Legend: The nucleotide and the deduced amino acid sequence of the psbA gene of N. plastaginifolia is shown. The Ser-Asn substitution in the mutant psbA gene at codon 264 is boxed. The "silent" nucleotide-change at 933 position is also indicated. The N. plastaginifolia psbA gene spans an EcoRI-PstI restriction endonuclease fragment of 0.9kb and a PstI fragment of 2.3kb.

*To whom correspondence should be addressed

References: