

Name: *Dwarf (D)*

Accessions: H16 (LA4470)

Gene ID: Solyc02g089160

Map position: chromosome 2 (long arm)

Gene function: Brassinosteroid C-6 Oxidase (CYP85A1): Catalyze the C-6 oxidation of 6-deoxocastasterone (6-deoxoCS) to castasterone (CS), the immediate precursor of brassinolide (BL). CS is the BR active in vegetative tissues. In fruits, the CYP85A3 converts 6-deoxoCS) to CS and then to BL, which is the active BR in fruits.

Gene effect: The wild type allele *D* allows the brassinosteroid biosynthesis to be completed, thus reverting the diminutive size of MT plants.

Phenotypes: MT-*D* presents tall size; longer internodes and more spaced; leaves light green color, with a high number and size of segments; and larger inflorescence, as well as flowers and fruits.

Comments: The mutated alleles *d* (present in Micro-Tom) and *d^x* have reduced levels of active BR (CS) in vegetative tissues, but normal levels of BL in fruits, due to the action of CYP85A3.

Description of accessions available: MT-*D* is a BC6Fn introgressed from cv Manyel.

Figures:



MT (Right) which presents the mutated allele (*d*) and MT-*D* (Left)

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