Name: *gibberellin-deficient3* (*gib3*)

Accessions: H12 (LA4478)

Gene ID: Solyc07g066670

Map position: chromosome 7

Gene function: ent-Kaurene synthase – KS synthase (gibberellin biosynthesis)

Gene effect: plants harboring the mutated allele produce low amounts of the hormone gibberellin.

Phenotypes: MT-*gib3* presents short internodes, dwarf size, reduced wrinkled leaves and reduced germination.

Comments: seeds need to be germinated in filter paper soaked with 100 µM GA_3. The residual GA will produce smooth leaves and maybe enough to ensure flowering. Sprays (every other week) with 100 µM GA_3 at flowering stage are also necessary for fruit development.

Description of accessions available: MT-*gib3* is a BC6Fn introgressed from LA2895 (cv Moneymaker)

Figures:

Adult MT-*gib3* growing in a 150-ml pot.

Bibliography

Bensen RJ, Zeevaart JAD (1990). Comparison of *Ent*-kaurene synthetase A and B activities in cell-free extracts from young tomato fruits of wild-type and *gib-1, gib-2*, and *gib-3* tomato plants. Journal of Plant Growth Regulation 9: 237-242.

Koornneef M, Bosma TDG, Hanhart CJ, van der Veen JH, Zeevart JAD (1990). The isolation and characterization of gibberellin-deficient mutants in tomato. Theoretical and Applied Genetics 80: 852-857.

Nagel OW, Konings H, and Lambers H (2001). Growth rate and biomass partitioning of wild type and low-gibberellin tomato (*Solanum lycopersicum*) plants growing at a high and low nitrogen supply. Physiologia Plantarum 111: 33–39.

Nagel OW, Lambers H (2002). Changes in the acquisition and partitioning of carbon and nitrogen in the gibberellin-deficient mutants *A70* and *W335* of tomato (*Solanum lycopersicum* L.). Plant, Cell and Environment 25: 883-891.