

Name: *Uniform ripening (U)*

Accessions: OC1 (LA4483)

Gene ID: Solyc10g008160

Map position: chromosome 10 (short arm)

Gene function: GOLDEN2-LIKE (GLK2) transcription factor belonging to the GARP subfamily of the myb transcription factor super- family in plants.

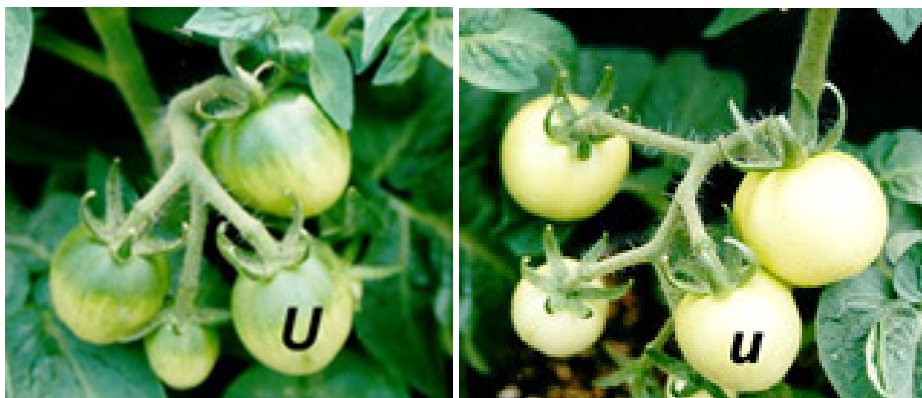
Gene effect: plants harboring the wild type allele present more chloroplast formation in the proximal portion of the fruit.

Phenotypes: plants with the wild type allele present uneven green color in unripe fruits, with higher pigmentation on shoulder.

Comments:

Description of accessions available: MT-*U* is a BC6Fn introgressed from cv. Rheinlands Ruhm.

Figures:



MT-*U* (left) showing dark shoulder

Bibliography

Bohn GW and Scott DH (1945) A second gene for uniform unripe fruit color in the tomato. *Journal of Heredity* 36 (6): 169-172.

Carvalho RF, Campos ML, Pino LE, Lombardi-Crestana SL, Zsogon A, Lima JE, Benedito VA, Peres LEP (2011) Convergence of developmental mutants into a single tomato model system: Micro-Tom as an effective toolkit for plant development research. *Plant Methods*, 7:18.

Kemp GA and Nonnecke IL (1960) Differences in intensity of unripe fruit color in the tomato. Canadian Journal of Plant Science 40: 306-309.

Powell ALT, Nguyen CV, Hill T, Cheng KL, Figueroa-Balderas R, Aktas H, Ashrafi H, Pons C, Fernández-Muñoz R, Vicente A, Lopez-Baltazar J, Barry CS, Liu Y, Chetelat R, Granell A, Van Deynze A, Giovannoni JJ, Bennett AB (2012) Uniform ripening encodes a Golden 2-like transcription factor regulating tomato fruit chloroplast development. Science 336:1711-1715.

Reynard GB (1952) Genes for uniform ripening of fruits. Report of the Tomato Genetics Cooperative 2: 7.

Tigchelaar EC, Barman RJ (1978) Linkage of the non-ripening (nor) and uniform ripening (u) genes. Report of the Tomato Genetics Cooperative 28: 20.

Yeager T (1935) The *uniform fruit color* gene in the tomato. Proc Amer Soc Hort. Sci 33: 512.