

**Name:** *tangerine (t)*

**Accessions:** OC6

**Gene ID:** Solyc10g081650

**Map position:** chromosome 10 (long arm).

**Gene function:** carotenoid isomerase - CrtISO

**Gene effect:** frutis with the mutated allele accumulate zeta-carotene and prolycopene instead of lycopene.

**Phenotypes:** Tangerine or rich orange color of fruit flesh; stamens orange colored. Some altered coloration is also observed in leaf.

**Comments:**

**Description of accessions available:** MT-*t* is a BC6Fn introgressed from LA0030

**Figures:**



MT-*t* (left) showing tangerine or rich orange color of fruit

### **Bibliography**

Isaacson T, Ohad I, Beyer P, Hirschberg J (2004) Analysis in vitro of the enzyme CRTISO establishes a poly-cis-carotenoid biosynthesis pathway in plants. *Plant Physiology*, 136: 4246–4255.

Isaacson T, Ronen G, Zamir D, Hirschberg J (2002) Cloning of *tangerine* from tomato reveals a carotenoid isomerase essential for the production of  $\beta$ -carotene and xanthophylls in plants. *Plant Cell* 14:333–342.

Tomes ML (1963) Temperature inhibition of carotene synthesis in tomato. *Botanical Gazette* 124:180-185.