Name: Petroselinum (Pts)

Accessions: LS3

Gene ID: Solyc06g072480

Map position: chromosome 6 (long arm)

Gene function: KNOX transcription factor

**Gene effect**: This class of transcription factors is believed to extend meristematic activity, thus producing more elaborated meristem-derived leaves.

**Phenotypes**: Plants with the mutated allele present augmented number of leaflets. The leaflet margins are more dentate. A slight reduction in internod length and a delay in seed germination are also observed.

**Description of accessions available:** Mt-*Pts* is a BC7Fn introgressed from LA1401 (*S. galapagense*)

**Comments**: *Pts* was named after parsley scientific name (*Petroselinum crispum*), since the ornate leaves of *S. galapagense* resembles that vegetable. However, it is now clear that the high dissected leaves of *S. galapagense* are the product of at least two loci: *Pts* and *gdw*. The loci *Pts*, *B* and *Sp* are linked in the chromosome 6. MT-*Pts* is a recombinant where the *Pts* allele from *S. galapagense* was recombined with the *sp* and *b* alleles from MT.

## **Figures**





<u>Left photo</u>: Adult MT-*Pts* showing serrated leaflets margins. <u>Right photo</u>: Additive effect of *Pts* and *gdw*. Both alleles are natural genetic variations from *S. galapagense* LA1401.

## Bibliography

Hareven D, Gutfinger T, Parnis A, Eshed Y, Lifschitz E (1996) The making of a compound leaf: genetic manipulation of leaf architecture in tomato. Cell 84:735-744.

Kimura S, Koenig D, Kang J, Yoong FY, Sinha N (2008) Natural variation in leaf morphology results from mutation of a novel KNOX gene. Current Biology 18:672-677.