**S2 Table. SUSY1 haplotypes and the corresponding tomato accessions**

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| Haplotype | Variations\* | Accessions\*\* |
| 1 | none | S.lyc PI406760 S.lyc LA1090 S.lyc EA00488 S.lyc TR00003 S.lyc LYC3306  S.lyc EA00157 S.lyc V710029 S.lyc EA01088 S.lyc PI203232 S.lyc LYC1410  S.lyc EA00940 S.lyc TR00019 S.lyc TR00022 S.lyc EA01640 |
| 2 | A709S | S.lyc EA03222 |
| 3 | R11S | S.lyc EA01155 S.lyc PI272654 S.lyc EA02054 S.lyc LA1324 S.lyc TR00018 |
| 4 | V354G | S.lyc LA2706 S.lyc LA2838A S.lyc EA00371 S.lyc LA2463 S.lyc LYC1969  S.lyc LYC1738 S.lyc LYC3476 S.lyc LYC1343 S.lyc EA01049 S.lyc LYC3153  S.lyc EA00990 S.lyc PI303721 S.lyc LA4451 S.lyc PC11029 S.lyc PI93302  S.lyc SG16 S.lyc PI169588 S.lyc EA01019 S.lyc TR00020 S.lyc EA01037  S.lyc TR00021 S.lyc TR00023 S.lyc LYC2910 |
| 5 | R11S, V354G | S.lyc PI311117 S.lyc PI158760 S.lyc LA4133 S.lyc CGN15820 |
| 6 | R11S, S537T | S.lyc PI129097 S.lyc LA0113 S.pim LYC2740 S.pim LA1584 S.hua LA1365  S.cor LA0118 S.hab LA1718 S.pen LA1272 |
| 7 | R11S, V354G, S537T | S.lyc EA00325 S.lyc EA00375 S.lyc LYC2962 S.lyc LA1421 S.lyc LA1479  S.chm LA2663 S.pim LYC2798 S.pim LA1578 S.neo LA2133 S.neo LA0735  S.arc LA2172 S.hab LA1777 |
| 8 | R11S, S537T, R641K | S.chm LA2695 |
| 9 | R11S, S537T, E727D | S.chi CGN15532 |
| 10 | R11S, R375H, S537T | S.hab PI134418 |
| 11 | R11S, S537T, G600E, E727D | S.hua LA1364 |
| 12 | R11S, S537T, T569S, K730N | S.che LA0483 |
| 13 | R11S, I216V, V354G | S.hab CGN157592 S.hab LA0407 S.hab LYC4 |
| 14 | R11S, I216V, V354G, S537T | S.hab CGN157591 |
| 15 | R11S, A176T, V354G, S537T | S.arc LA2157 |
| 16 | R11S, A176T, S537T, T569S | S.arc LA385 |
| 17 | R11S, S537T, T569S, K730N | S.gal LA1044 |
| 18 | R11S, A176T, S537T, T569S, G600E | S.hua LA1983 |
| 19 | R11S, L318F, S537T, N635K | S.pen LA0716 |
| 20 | R11S, V354G, S537T, T569S, K730N | S.che LA1401 |
| 21 | E3D, R11S, G348S, S537T | S.per LA1278 |
| 22 | R11S, G348S, V354G, S537T | S.chi CGN15530 |
| 23 | R11S, S73T, G348S, V354G, S537T, K566M, E727D | S.per LA1954 |

\* x#y: x, amino acid of the reference Heinz cultivar; #, amino acid position; y, amino acid of the variant

\*\* S, Solanum; lyc, lycopersicum; cor, corneliomulleri; pim, pimpinellifolium; neo, neorickii; hua, huaylasense; hab, habrochaites; pen, pennellii; chm, chiemliewskii; chi, chilense; arc, arcanum; che, cheesmaniae; gal, galapagense. The accessions in black letters are listed as (old) cultivars and landraces, whereas the ones in red letters are considered as wild species.