The LGC tomato genotyping library offers convenient access to functionally validated KASP™ genotyping assays. The SolCAP consortium, in collaboration with LGC Genomics, have generated a validated panel of 384 carefully selected KASP SNP markers for cultivated tomato, plus ~7000 additional KASP SNP markers.

Browse the available tomato (Solanum lycopersicum L.) SNP assays and request a quote with the online Assay Search Tool: http://lgcapps.com/assays/tomato

Tomato KASP SNP markers
The Solanaceae Coordinated Agricultural Project (SolCAP) was supported by the Agriculture and FoodResearch Initiative Applied Plant Genomics CAP Program of USDA’s National Institute of Food and Agriculture.

Advantages of the pre-validated tomato assays:
- Library includes 384 functionally validated SNP assays
- Pick and choose the assays relevant to your research using our online Assay Search Tool
- Assays can be either:
  a) run in your own laboratory
  b) run through our genotyping service laboratories
- Proven KASP technology delivers superior genotyping performance

The project linked together people from public institutions, private institutions and industries dedicated to the improvement of the Solanaceae crops: potato and tomato.

“Working with the SolCAP team of academic bioinformatics experts, tomato breeders and LGC, we have generated a ‘Core Marker Set’ for cultivated tomato. This core set of 384 KASP assays have been selected from validated SNPs. The markers have been selected to maximise polymorphic information content based on 110 large-fruited elite fresh-market tomato varieties. The SNPs were further selected to be evenly distributed across the genome, based on both genetic and physical maps.” - Dr. David Francis, Ohio State University, Department of Horticulture & Crop Science.

Other collaborators in this study were the Department of Plant Biology, Michigan State University, and the Seed Biotechnology Center, University of California Davis.

All information from the study is available to view and download from http://solcap.msu.edu/index.shtml

These KASP genotyping assays are easy to run, robust, accurate and highly cost-effective. The reagents for KASP genotyping can be delivered to you so that you can run the assays in your own laboratory; KASP can be read on most qPCR instruments and FRET-capable plate readers.

Alternatively, we can run the entire project for you in our genotyping service laboratories, including DNA extraction from your samples if required.
Additional genotyping panels available from LGC

LGC have been providing genotyping solutions for over 10 years to a global customer base. We have developed libraries of pre-validated KASP genotyping assays for a wide range of species. These libraries have been developed in collaboration with scientific partners who have substantial experience of working with their respective organisms.

For more information on the additional wheat, lentil, maize and zebrafish genotyping libraries we offer, please visit our website: www.lgcgroup.com/kasp-snp-libraries

How to order

With our online tomato SNP Assay Search Tool, you can search for specific assays, download your selection, and request a quote: http://lgcapps.com/assays/tomato

To request genotyping service pricing and to order, please contact your local sales representative, our customer support team, or complete our online enquiry form: www.lgcgroup.com/genomics-contact

References


Generation of the extensive SolCAP database of transcript sequences and > 60,000 non-redundant SNPs to aid tomato genetics and breeding projects. The study used data from six tomato accessions spanning different cultivated classes; utility of the SNPs for assessing genetic variation within cultivated and wild populations was demonstrated.


In order to investigate genetic variation on the tomato genome due to contemporary breeding, Sim et al. used an array of 7,720 of the SolCAP SNPs to genotype 426 accessions representing different market classes of cultivated tomato and closely related wild species.

For technical questions, please contact our support group at:

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Fig.1: Typical SNP genotyping results using a pre-validated KASP tomato assay on 1536-well plate with SNPline instrumentation. The data was normalised with ROX and plotted using KlusterCaller software.