

Product Spotlight

GeneChip® Rice 44K SNP Genotyping Array

Helping the rice community feed the world's population

The GeneChip® Rice 44K SNP Genotyping Array, the highest density array of its kind, enables the rice research community to study genome-wide genetic variation in *Oryza sativa*.

With the array's high resolution and superior genomic coverage, researchers can now collaborate internationally to easily assay the natural variation of rice varieties worldwide to identify genes underlying important phenotypic traits (such as high-yielding varieties to increase rice production), understand genetic sources of variation and associated phenotypic changes, and differentiate varieties for fingerprinting and classification purposes.

The GeneChip Rice 44K SNP Genotyping Array was developed in collaboration with Dr. Susan R. McCouch, a professor in the Department of Plant Breeding and Genetics at Cornell University, as well as a team of scientists from world-renowned rice research institutes and private sector partners.

The array is designed to detect common genetic variants within and between the major subpopulations of rice, including *indica*, *aus*, *tropical japonica*, *temperate japonica*, and group V ("aromatic").

The Rice 44K Genotyping Array enables:

- Quick product identity confirmation
- Flexible and fast identification and classification of germplasm
- Identification of high-yield variants
- Genome-wide association mapping
- Tracking of disease genes
- Low-cost analysis – less than a penny per data point
- Fast turnaround from DNA to data
- Flexible sample input – send leaf tissue or extracted DNA
- Genetic variation analysis of any *O. sativa* strain



Rice 44K SNP Genotyping Array



Array specifications

- 44,100 SNPs
- ~1 SNP every 10 kb throughout the 12 chromosomes of rice
- 12 probes per SNP
- Median call rate of 95.9 percent for more than 400 diverse *O. sativa* (inbred) accessions
- Greater than 99 percent average pair-wise concordance of technical replicates
- Greater than 92 percent average call rate

Service providers

To provide the rice community with access to this powerful technology, Affymetrix has designated service providers who offer quality assurance, quick turnaround time, affordable prices, and confidentiality to researchers.

To learn more about the Rice 44K Genotyping Array, please contact your local Affymetrix account manager.

For information about genotyping service for the array, please contact the following:

Charles Pick, DNA Landmarks:

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