

Homo Sapiens Screening Array 88K

China's First Human Genotyping Microarray with Full Intellectual Property Rights (On SNP Markers, microarrays, reagent kits and microarray scanners.)



About Homo Sapiens Screening Array 88K

Homo Sapiens Screening Array 88K features more than 81,000 SNP markers, which can be extended to 88K. These markers are distributed across chromosomes 1 through 22 and the X chromosome, and are implicated in Pharmacogenomics, Disease Susceptibility, and the diversity of Genetic Information.

1. Pharmacogenomics

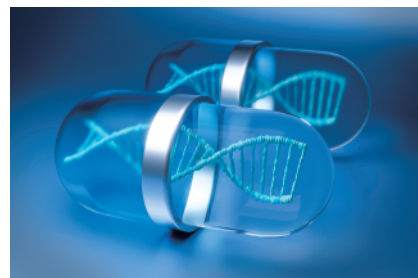
The selected pharmacogenomic SNP markers are identified that are associated with drug absorption, distribution, metabolism, and excretion (ADME) based on the Pharmacogenomics Knowledgebase (PharmGKB) and the Clinical Pharmacogenetics Implementation Consortium (CPIC), supporting genomic research on various drugs, including common neuropsychiatric drugs, digestive system medications, cardiovascular agents, anti-infectives, as well as anti-inflammatory and anti-rheumatic drugs.

2. Disease Susceptibility

The selected disease susceptibility SNP markers, based on the NHGRI-EBI GWAS (National Human Genome Research Institute-European Bioinformatics Institute Genome-Wide Association Studies), are associated with oncological conditions, cardiovascular and cerebrovascular diseases, neurological psychiatric disorders, as well as digestive system diseases.

3. Diversified genetic information

Ancestry analysis, inherited traits, mental health, dietary nutrition, skin characteristics, sports health, etc.



Features



Extendable

The technology allows researchers to add new custom content to existing panels, enabling researchers to keep up to date with recent discoveries.



High-Throughput

From 5K up to 1000K markers per array.



Efficient

Rapid delivery time for custom arrays: about 6-8 weeks after design confirmation. Fast turnaround time: within 72h per experiment.



Accurate

Each marker is assayed 15-30 times. Average call rate $\geq 97.9\%$. Reproducibility $\geq 99.5\%$.

USE CASE

Beginning in June 2023, Genebox began using LASO Homo Sapiens Screening Array for personal genetic testing, marking a substantial reduction in costs relative to imported Microarrays. As of now, over 38,000 samples have undergone testing with this array, with excellent performance - the average call rate is as high as 97.9%, and the reproducibility is as high as 99.9%.

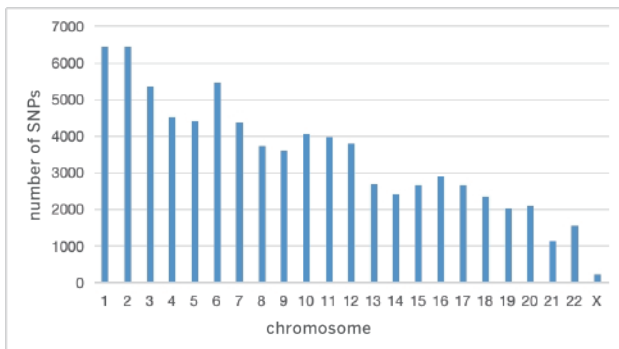


Figure 1: The distribution of markers on chromosomes in human.

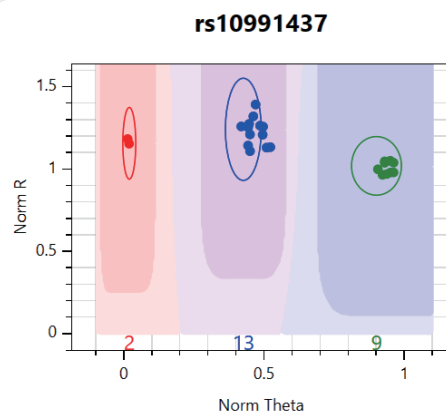


Figure 2: Genotyping clustering plot of a single SNP in LASO HSSA Array.

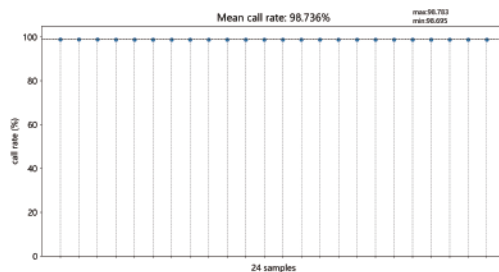


Figure 3: Genotype call rate for human samples with HSSA.
*Mean call rate: 98.74%.

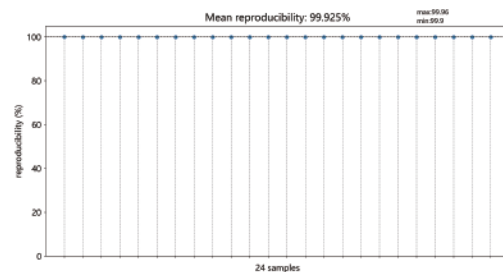


Figure 4: Genotype reproducibility for human samples using HSSA.
*Mean reproducibility: 99.93%.