

HumanOmniExpress BeadChip

Process more samples to discover novel disease and trait associations, with optimized tag SNP content and industry-leading pricing.

OVERVIEW

The HumanOmniExpress (OmniExpress) BeadChip delivers superior power for genome-wide association studies (GWAS), providing high sample throughput and comprehensive genomic content at the industry's best price. Using the proven iScan System, this twelve-sample BeadChip offers unrivaled throughput of thousands of samples per week—the ideal solution for processing the greatest number of samples within a given budget. Optimized tag SNP content from all three HapMap phases has

been strategically selected to capture the greatest amount of variation and drive the discovery of novel associations with traits and diseases.

The OmniExpress BeadChip includes convenient kit packaging, a streamlined PCR-free protocol, and integrated analysis software to provide a comprehensive DNA analysis solution. With the highest data quality and best content, including full support of copy number variation (CNV) applications, this powerful genotyping tool allows you to make more meaningful discoveries and publish faster.

PRELIMINARY PRODUCT INFORMATION

PARAMETERS*	OMNIEXPRESS BEADCHIP
SNP loci per sample	> 700,000
Samples per BeadChip	12
DNA input	200 ng per sample
Instrument support	iScan
Array processing throughput†	> 1,400 samples per week
Assay	Infinium® HD
Publications using the assay	> 300+
Content source	HapMap Phases 1, 2, and 3
Genomic coverage*	0.91 (CEU) / 0.91 (JPT+CHB) / 0.68 (YRI) at $r^2 > 0.8$
Marker spacing for CNV discovery	~4.0 kb mean / ~2.0 kb median
Software support	Full support for genotype calls and CNV analysis within GenomeStudio®
Data quality	<ul style="list-style-type: none"> • Call frequency: > 99% average • Reproducibility: > 99.9%
Estimated scan time	5 minutes per sample on the iScan system
List price ‡	\$250 per sample (USD)

* Estimated before final GenTrain; final numbers will vary.

† Estimate assumes one iScan system, one AutoLoader2, one Tecan Robot, and a five-day work week.

‡ Represents pricing for North America—contact your local sales representative for regional pricing.

FIGURE 1: TWELVE-SAMPLE OMNIEXPRESS BEADCHIP



The OmniExpress BeadChip's twelve-sample format supports rapid, cost-effective studies.

The OmniExpress BeadChip is also the basis of the 2010 GWAS product roadmap, which will provide researchers favorable pricing and future access to five million variants per sample, including broad coverage of rare variants identified by the 1000 Genomes Project.

ADDITIONAL INFORMATION

For additional information on the Omni family of microarrays, visit www.illumina.com/gwas.

Illumina, Inc.

Customer Solutions

9885 Towne Centre Drive
San Diego, CA 92121 USA
1.800.809.4566 toll-free
1.858.202.4566 tel
techsupport@illumina.com
www.illumina.com

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