

Table 1: Technical Specifications

| Catalog No. | Description | Design (Design ID) | Unique Probes | Targeted Regions ^a | Average Spacing/ Replication | Spike-in Controls |
|-----------------|----------------------------|------------------------------|---------------|-------------------------------|---------------------------------|-------------------|
| PR-21-408001-00 | CytoChip Oligo 2x105K v1.0 | Oligo Constitutional (21856) | 101,024 | 142 | 30 Kb/x1 | No |
| PR-21-408003-00 | CytoChip ISCA 4x44K v1.0 | ISCA* v1.0 (23097) | 43,079 | 232 | 70 Kb/x1 | No |
| PR-21-408005-00 | CytoChip ISCA 8x60K v2.0 | ISCA* v2.0 (26370) | 59,055 | 498 | 51 Kb/x1 | Yes |
| PR-21-408006-00 | CytoChip ISCA 4x180K v1.0b | ISCA* v1.0 (24585) | 174,200 | 500 | 18 Kb/x1 | No |
| PR-21-408010-00 | CytoChip ISCA 4x44K v2.0 | ISCA* v2.0 (28739) | 43,085 | 232 | 70 Kb/x1 | Yes |
| PR-21-408011-00 | CytoChip ISCA 2x105K v2.0 | ISCA* v2.0 (28740) | 100,401 | 498 | 30 Kb/x1 | Yes |
| PR-21-408013-00 | CytoChip ISCA 4x180K v2.0 | ISCA* v2.0 (30078) | 147,693 | 500 | 21 Kb/x1 | Yes |
| PR-21-408024-00 | CytoChip Focus 8x60K v1.0 | Focus 60K v1.0 (40942) | 31,198 | 162 | 97 Kb/x1 disease, x2 backbone | Yes |
| PR-21-408026-00 | CytoChip Focus 4x180K v1.0 | Focus 180K v1.0 (45830) | 63,526 | 179 | 44 Kb/x1 disease, x3 backbone | Yes |

a. Regions were targeted using the best genome build information available at the time of the design creation.
b. The CytoChip ISCA 4x180K v1.0 design was produced using the ISCA v2.0 design but with a filled-out backbone, so that all available features on the array were used.
*All ISCA design targets were provided by the ISCA consortium on genome build 36.

Table 2: Stock Control, Delivery, and Expiration

| Catalog No. | Description | Classification | Target Delivery | Guaranteed Delivery | Minimum Expiration | QC Process |
|-----------------|----------------------------|----------------|-----------------|---------------------|--------------------|-------------------------|
| PR-21-408001-00 | CytoChip Oligo 2x105K v1.0 | Volume | 14 days | 45 days | 3 months | 1 slide from first lot |
| PR-21-408003-00 | CytoChip ISCA 4x44K v1.0 | Volume | 14 days | 45 days | 3 months | 1 slide from first lot |
| PR-21-408005-00 | CytoChip ISCA 8x60K v2.0 | High volume | 7 days | 30 days | 3 months | 1 slide from every lot* |
| PR-21-408006-00 | CytoChip ISCA 4x180K v1.0 | High volume | 7 days | 30 days | 3 months | 1 slide from every lot* |
| PR-21-408010-00 | CytoChip ISCA 4x44K v2.0 | Special | 35 days | 60 days | 3 months | 1 slide from first lot |
| PR-21-408011-00 | CytoChip ISCA 2x105K v2.0 | Special | 35 days | 60 days | 3 months | 1 slide from first lot |
| PR-21-408013-00 | CytoChip ISCA 4x180K v2.0 | Special | 35 days | 60 days | 3 months | 1 slide from first lot |
| PR-21-408024-00 | CytoChip Focus 8x60K v1.0 | Volume | 14 days | 45 days | 3 months | 1 slide from first lot |
| PR-21-408026-00 | CytoChip Focus 4x180K v1.0 | Volume | 14 days | 45 days | 3 months | 1 slide from first lot |

*Only if > 30 units ordered from a lot

Each lot of Fluorescent Labeling System and COT Human DNA are checked for performance in hybridizations. Quality control metrics, such as signal-to-noise ratio, the spread of data points on the autosomal chromosomes, and the shift from 0 (log₂ scale) of data points on the sex chromosomes are used as measures of quality and have to exceed a threshold set from historical data.

To ensure that components of the Fluorescent Labeling System are supplied with the correct quantities, three kits from each lot are checked for reagent fill volumes.

Stock Control, Delivery Dates, and Expiration

Illumina operates a sophisticated stock control procedure in order to ensure reliable supplies of critical components while maximizing useful life. In order to achieve this, each microarray model number is classified as a volume, high-volume, or special product. For each product, Illumina commits to a target delivery date and a guaranteed delivery date as summarized in Table 2. The information in this table is relevant to the microarray slides; for information on other pack components, please see individual product descriptions. All pack components are shipped at the same time.

Contents

See Table 3 for a complete list of kit contents and part numbers.

Safety Information

Safety data sheets are available for download from www.cambridgebluegenome.com.

PR-4080/4081/4381/4380: CytoChip Oligo
PR-30-413431-00: Fluorescent Labeling System (dUTP) part 1
PR-30-413401-00: Fluorescent Labeling System (dUTP) part 2
PR-40-413503/413510: COT Human DNA

Additional Documents

Additional documents available for download include:

- CytoChip Oligo Reference Manual
- CytoChip Oligo Summary Protocol
- Annotation database for BlueFuse Multi (for all microarray formats)
- A GAL file for each of the CytoChip Oligo array designs
- CytoChip ISCA regions
- CytoChip Focus regions
- Quality control documents for each microarray design
- BED files for each array design

References

1. Baldwin EL, Lee JY, Blake DM, Bunke BP, Alexander CR, et al. (2008) Enhanced detection of clinically relevant genomic imbalances using a targeted plus whole genome oligonucleotide microarray. *Genet Med* 10: 415-429.
2. Wapner, RJ, Martin CL, Levy B, Ballif BC, Eng CM, et al. (2012) Chromosomal microarray versus karyotyping for prenatal diagnosis. *NEJM* 367: 2175-2184.
3. Fiorentino F, Napoletano S, Caiazzo F, Sessa M, Bono S, et al. (2013) Chromosomal microarray analysis as a first-line test in pregnancies with a priori low risk for the detection of submicroscopic chromosomal abnormalities. *Eur J Hum Genet* 21: 725-730.

Ordering Information

| Product | Catalog No. | No. Samples |
|---------------------------------|-----------------|-------------|
| CytoChip Oligo 2x105K v1.0 Pack | PR-10-408001-PK | 16 |
| CytoChip ISCA 4x44K v1.0 Pack | PR-10-408003-PK | 16 |
| CytoChip ISCA 8x60K v2.0 Pack | PR-10-408005-PK | 32 |
| CytoChip ISCA 4x180K v1.0 Pack | PR-10-408006-PK | 16 |
| CytoChip ISCA 4x44K v2.0 Pack | PR-10-408010-PK | 16 |
| CytoChip ISCA 2x105K v2.0 Pack | PR-10-408011-PK | 16 |
| CytoChip ISCA 4x180K v2.0 Pack | PR-10-408013-PK | 16 |
| CytoChip Focus 8x60K v1.0 Pack | PR-10-408024-PK | 32 |
| CytoChip Focus 4x180K v1.0 Pack | PR-10-408026-PK | 16 |

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