

**BlueGnome Limited**



## CytoChip Focus Constitutional

### **Version 1.0**

**Model number**

4095-1

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#### 1. Supply

CytoChip microarrays are supplied in packs of four slides packaged in a slide box inside a desiccated foil bag. Each slide contains two subarrays and is labelled with a unique, lot-specific, barcode. The foil bag is labelled with product number, array version, lot number and expiry date.

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#### 2. Size

Each pack of four slides is suitable for eight single hybridizations.

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#### 3. Storage

CytoChips are supplied at room temperature and should be kept desiccated and protected from light. They should be stored desiccated, protected from light, at room temperature until required.

CytoChips should be used before the expiry date.

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#### 4. Description

CytoChip Focus microarrays are designed to be used in array comparative genomic hybridization (arrayCGH) experiments where differently fluorescently labelled test and reference DNA's are competitively hybridized to immobilized probes (BAC clones- bacterial artificial chromosome) in order that regions of copy number imbalance can be identified.

CytoChip Focus microarrays are specifically designed for use in applications where the amount or quality of starting material is unsuitable for traditional arrayCGH. This design has involved the selection of BACs that perform particularly well in arrayCGH experiments and avoid regions of known copy number variation. In addition the selected BACs are replicated to a higher degree than on our standard CytoChip V3.

Each CytoChip Focus Constitutional subarray contains 3161 BAC clones from the Roswell Park Cancer Institute (RP-nomenclature) human genome collection enabling investigation of 139 disease-specific loci at 100 Kb resolution and screening of the genomic backbone at 1 Mb resolution.

446 BACs covering disease-specific regions are printed four times in each subarray, whilst the remaining 2715 clones are printed in triplicate. BAC clones are DOP-PCR amplified and immobilized on Codelink coated glass microarray slides.

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#### 5. Quality control

Each lot of CytoChip microrarrays undergoes a thorough quality control procedure to ensure that the arrays perform to the highest standard. Slides from the beginning, middle and end of each lot are hybridized with sex-mismatched DNAs using the CytoChip protocol and analysed for performance (signal, noise, dynamic range) and physical integrity (including feature number, morphology and merging).

Sophisticated bioinformatics are used to identify any features that have consistently failed to print across the lot. If these features only impact one of the replicates the feature is removed from the GAL file. In all cases a lot specific GAL file is produced and is available for download from [www.cytochip.com](http://www.cytochip.com).

