

Reprogenetics



DNA Microarray Technology – 24 Chromosome Analysis

Comprehensive aneuploidy screening in single cells is now available as a result of Reprogenetics collaboration with Empire Genomics. Empire Genomics, the leader in best in class high throughput technologies that enable genome-wide analysis, has developed a technology called array-based Comparative Genomic Hybridization (aCGH) that determines copy number aberrations to streamline screening for chromosomal defects such as Down syndrome. Reprogenetics, pioneer in Preimplantation Genetic Diagnosis (PGD), has successfully applied this technology to aneuploidy screening allowing high resolution analysis of all 24 chromosomes.

What type of sample is required for testing?

This type of advanced genetic test must be used in conjunction with in vitro fertilization (IVF) as removal of a cell from an oocyte or embryo is required to perform the analysis. Once the cells are removed they are individually identified, loaded into tubes and sent to Reprogenetics for testing.

Which patients will benefit from 24 chromosome analysis?

This new technology will enable Reprogenetics to improve screening for genetic defects and improve pregnancy outcome for all patients going through IVF by reducing spontaneous abortions and genetically affected conceptions. In the future we anticipate the ability to combine this technology with detection of other microdeletion syndromes.

What is significant about the product?

The microarray is a treated glass slide with the ability to individually screen eight samples in a 24 hour period. Each of the eight samples is unique and the result of one sample is not dependent on the cohort.

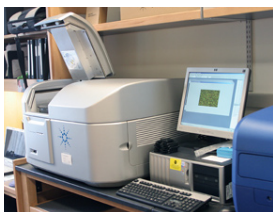
aCGH enables Reprogenetics to perform high throughput aneuploidy screening from a single cell.

How does array based Comparative Genomic Hybridization (aCGH) work?

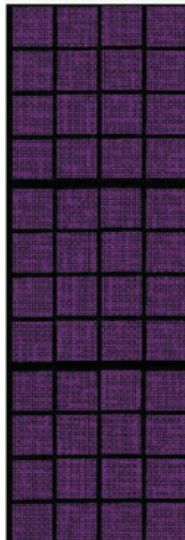
Once the samples are received by Reprogenetics the DNA contained in the tubes is amplified and hybridized on a slide with fluorescently labeled control DNA. The resulting fluorescent ratios provide clear clinical diagnosis of copy number aberrations. This diagnosis can significantly contribute to the success of the IVF procedure.



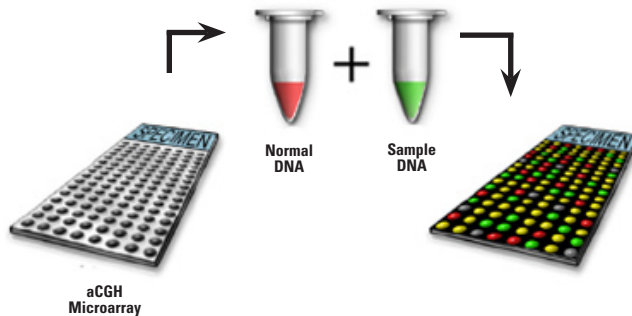
01. SCANNER



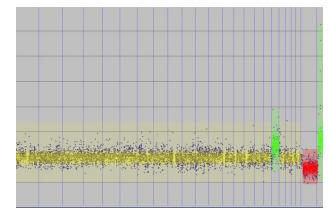
02. CGH ARRAY



03. THE METHOD



04. RESULT



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