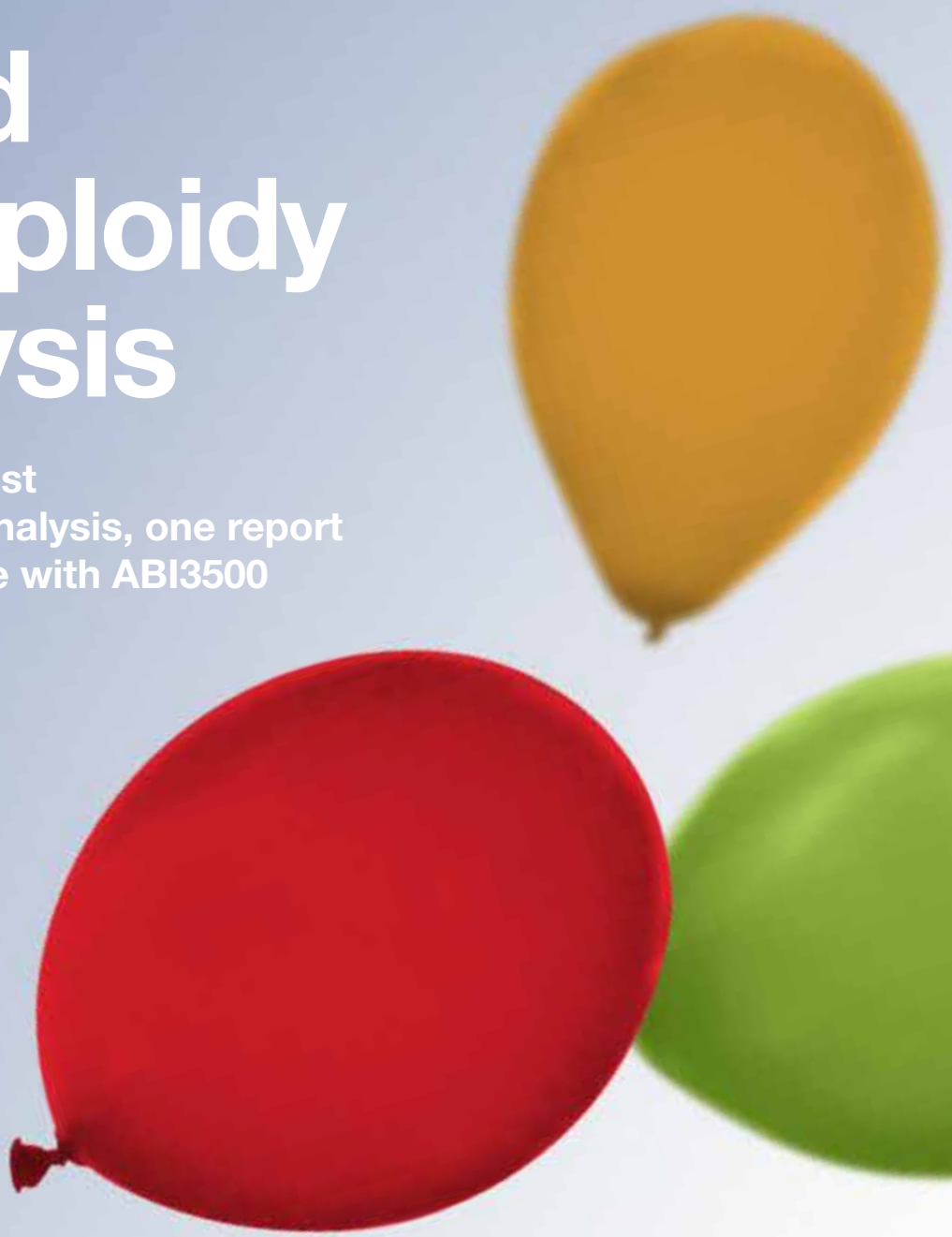
Elucigene®
Clarity without complexity

Rapid Aneuploidy Analysis

Simple and robust
One PCR, one analysis, one report
Validated for use with ABI3500



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Detecting the three most common viable autosomal trisomies

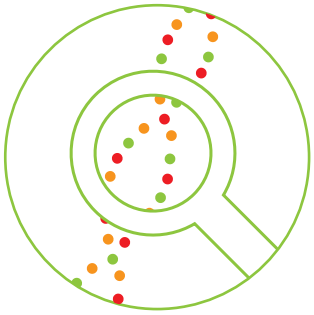
Trisomy analysis and QST*R*plus* v2

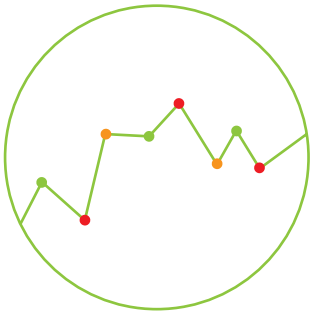
Screening for Down syndrome is offered routinely to thousands of women each year as part of standard antenatal care. For those women identified as being at high risk of carrying a Down syndrome foetus, chorionic villus sampling (10-12 weeks) or amniocentesis (14-18 weeks) is offered.

Standard cytogenetic techniques involving tissue culture and microscopic analysis can take up to 14 days to provide a diagnosis. Fluorescent in-situ Hybridisation (FISH) using interphase cells is expensive, time consuming and unsuitable for high throughput use.

Elucigene QST*R kits use the DNA based QF-PCR technique (see opposite). Individual results can be obtained within a few hours of receipt of samples. In routine use, turnaround reporting times of less than 24 hours from sample receipt are easily achievable.

Elucigene QST*R*plus*v2 is a highly multiplexed, single tube assay containing a total of 22 markers. Autosomal markers are used to detect the three most common viable autosomal trisomies: trisomy 21 (Down syndrome), trisomy 18 (Edwards syndrome) and trisomy 13 (Patau syndrome). Additional markers on the sex chromosomes X and Y including a specific marker for the quantification of the number of X chromosomes, is useful in the diagnosis of sex chromosome aneuploidies.





One PCR

- Simple set up – one tube per sample
- Rapid – minimum hands on time, just add DNA
- One step protocol – DNA extraction to PCR
- Reduced risk of sample mix-up
- Efficient – fewer consumables, reduced cost

One Analysis

- Validated for use on the ABI3500 Genetic Analyzer
- Highly informative – multiplexed 5 dye chemistry
- No post-PCR manipulation
- One capillary per sample
- Cost effective – less instrument consumables

One Report

- GeneMarker software application
- Simple data review and analysis
- Easy to use intuitive software
- Informative single page report
- No data transfer required

How it works

Quantitative Fluorescent-PCR

The method employed by Elucigene QST*R kits is the QF-PCR (Quantitative Fluorescence-Polymerase Chain Reaction) technique. Using PCR amplification, fluorescent dye labeled primers target highly polymorphic regions of DNA sequence, short tandem repeats (STRs), that are located on the chromosomes of interest. Each targeted STR marker is specific to the chromosome on which it is located, thus the copy number of the STR marker can be diagnostic of the copy number of the chromosome.

A normal diploid sample has the normal complement of two of each of the somatic chromosomes, thus two alleles of a chromosome specific STR are determined by the QF-PCR technique as two peaks in a 1:1 ratio. The observation of an extra STR allele as either a three peak pattern in a 1:1:1 ratio or two peak pattern in a 2:1 or 1:2 peak ratio is diagnostic of the presence of an additional sequence which in turn may represent an additional chromosome, as in the case of a trisomy.

Simplicity

Elucigene supports simple and easy to use analysis software for chromosome aneuploidy reporting. Results can be analysed through either Life Technologies GeneMapper or SoftGenetics GeneMarker software.

GeneMarker's operation is simple, fast and accurate and now includes a customised Trisomy Analysis function. By selecting BPG (Best Practice Guidelines) settings within the Trisomy Analysis function users can quickly and accurately measure allele ratios to obtain a full patient sample report within minutes.

Ordering details

Catalogue No.	Product	Product Description	Kit Size
AN0PLB2	Elucigene QST*R*plus*v2 Kit	QST*R*plus*v2 is a highly multiplexed single tube assay. It comprises a total of 22 markers for chromosomes 13, 18, 21, X and Y and will detect the most common viable autosomal trisomies and sex chromosome aneuploidies.	50 Tests
AN003B2	Elucigene QST*R Kit	QST*R is a highly multiplexed single tube assay comprising a total of 16 markers for the detection of the 3 most common viable autosomal trisomies (13, 18 and 21).	50 Tests
AN013BX	Elucigene QST*R-13 Kit	QST*R-13 detects additional chromosome 13 specific markers to supplement QST*R and QST*R*plus*v2 if required.	10 Tests
AN018BX	Elucigene QST*R-18 Kit	QST*R-18 detects additional chromosome 18 specific markers to supplement QST*R and QST*R*plus*v2 if required.	10 Tests
AN021BX	Elucigene QST*R-21 Kit	QST*R-21 detects additional chromosome 21 specific markers to supplement QST*R and QST*R*plus*v2 if required.	10 Tests
AN0XYB2	Elucigene QST*R-XYv2 Kit	QST*R-XYv2 comprises a total of 12 markers for both the X and Y chromosomes. It can be used to detect sex chromosome aneuploidies.	50 Tests
AN3XYB2	Elucigene QST*R/ QST*R-XYv2 Kit	A bundled product comprising one QST*R kit and one QST*R-XYv2 kit.	50 Tests

Elucigene QST*R kits are developed and manufactured within quality systems accredited to ISO9001:2008 and ISO13485:2003 and are validated as in vitro diagnostic devices in compliance with the European Community Directive 98/79/EC and the Canadian Medical Device Regulations (CMDR). Elucigene QST*R kits are developed in collaboration with Guy's and St Thomas' NHS Foundation Trust. Elucigene and QST*R are trademarks of Delta Diagnostics (UK) Ltd. GeneMarker is a trademark of SoftGenetics Corporation. VIC®, PET®, NED™ and GENEMAPPER are trademarks of Life Technologies Corporation.

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