

# PGT-A & PGT-M MADE SIMPLE

## PG-Seq™ Kit

A novel platform-independent complete NGS solution for preimplantation genetic testing

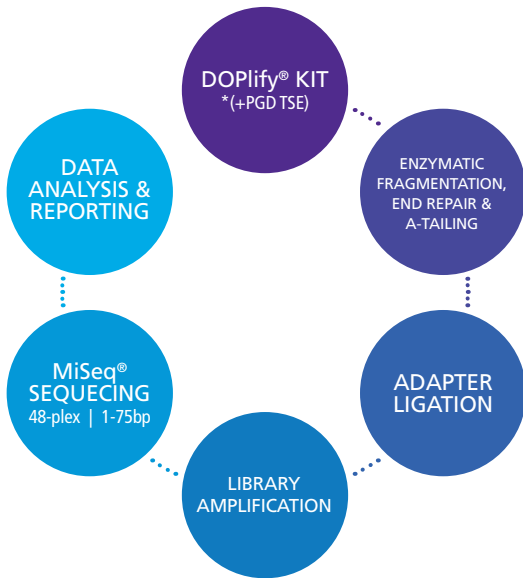
Pre-implantation genetic testing for aneuploidy (PGT-A) is used to identify embryos suitable for transfer or frozen storage.

The PG-Seq™ kit is a robust PGT-A NGS solution that has been specifically developed for this purpose. It can be run on Illumina® and Thermo Scientific® sequencers.

The protocol is simple and starts with the PerkinElmer® proprietary whole genome amplification DOPlify® kit. NGS library preparation is performed with an enzymatic fragmentation protocol. Batches of 48 or 96 samples can be run together on an Illumina® MiSeq® sequencer providing high throughput. Data is analysed with dedicated software and a QC score and clinical result is automatically generated.

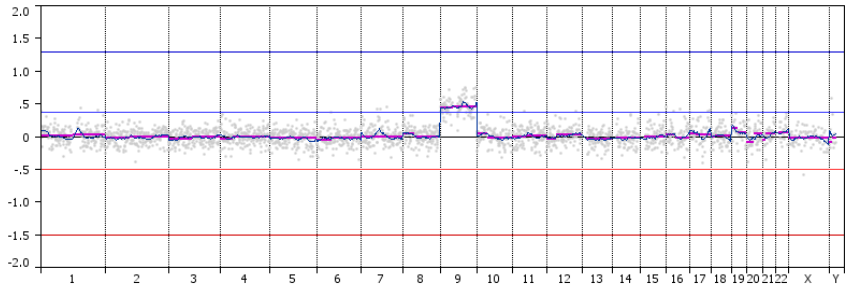
- Robust, simple, cost-effective complete solution
- Compatible with Illumina® and Thermo Scientific® sequencers
- The PG-Seq™ kit with target sequence enrichment provides novel combined PGT-A+PGT-M

## PG-Seq™ Workflow

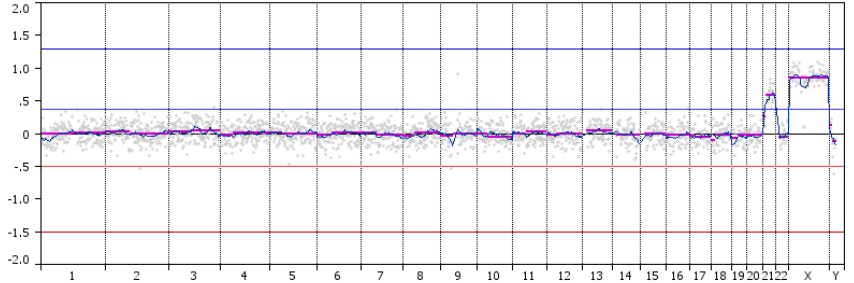


- The biopsy sample is collected directly into a PCR tube. Cell lysis (15min incubation) and whole genome amplification of the biopsy using DOPlify® kit (2hr 20min incubation) is followed by gel electrophoresis to confirm successful amplification.
- The NGS library is prepared in plate format to reduce sample handling. Amplified biopsy DNA is enzymatically fragmented (15min incubation) prior to end repair and a-tailing, followed by adapter ligation and library amplification (1hr total incubation).
- A total of 48 samples are subsequently indexed and sequenced on a MiSeq® platform (Illumina®) according to standard 1x75bp protocol (~10hr).
- The BAM files generated by the sequencer are loaded directly into the analysis software and CNV calls are generated. The complete protocol can be performed in a time suitable for reporting in 24hr
- \*Adding Target Sequence Enrichment (PGT-M TSE) provides a novel approach to combined PGT-A+PGT-M.

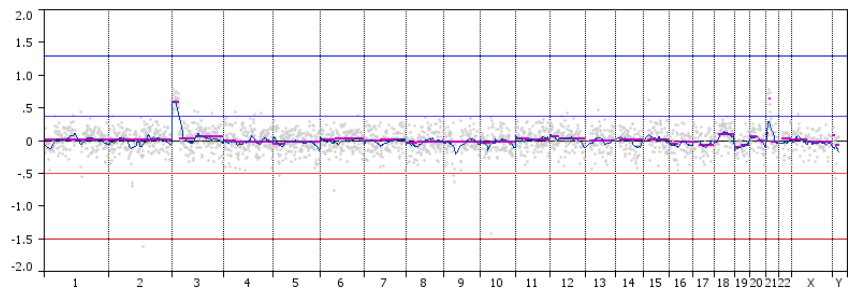
Sample: GM09286 47,XY,+9



Sample: GM04965 48,XXY,+21



Sample: GM09552 46,XY  
(gain 31Mb on chr3, gain 7Mb on chr 21)



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