

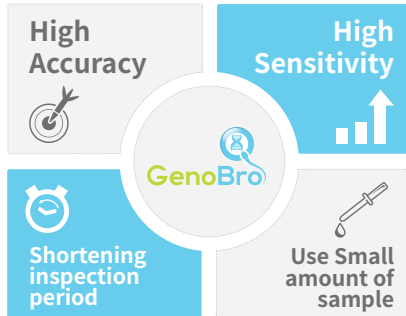
What is NGS?

NGS (Next Generation Sequencing)

Next Generation Sequencing is the latest technology to rapidly analyze whole DNA in human chromosome.

Advantages of NGS-based PGS

With the latest NGS equipment, inspection time can be shortened and accurate inspection is possible even with small amount of sample.



Limitations of pre-implantation genetic testing

NGS-based PGS testing has greatly improved high sensitivity and accuracy compared to conventional methods. However, since it analyzes genes from a small number of cells (1 to 10), analysis is impossible or rare, but there is a possibility of false positives and false negatives. In addition, the embryo itself cannot rule the mosaicism out. Therefore, if the case of pregnant with pre-implantation genetic testing, we recommend that you check your fetus for genetic abnormality through prenatal genetic testing.



GenoBro

GenoBro is pre-implantation genetic screening base on NGS(Next-Generation Sequencing), it is a fast and accurate screening in order to select genetically normal embryos.



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What is PGS for aneuploidy screening?

PGS (Pre-implantation Genetic Screening)

Preimplantation genetic screening (PGS) for aneuploidy is a powerful genetic test that may be performed on embryos during IVF treatment to screen for numerical chromosomal abnormalities. PGS is performed on a small embryo biopsy prior to transfer and identifies which embryos are chromosomally normal. Chromosomally normal embryos are the most likely to develop to term and to be born as a healthy baby. PGS testing helps IVF physicians and patients decide which embryos to transfer.

Introduction of GenoBro

GenoBro is an NGS-based PGS(pre-implantation screening) test that selects genetically normal embryos. It has a much higher sensitivity and suspend time than conventional methods (FISH, aCGH) and can shorten inspection time.

Increased implantation and pregnancy success rates and elimination of embryos with chromosomal abnormalities can reduce abortion rate.

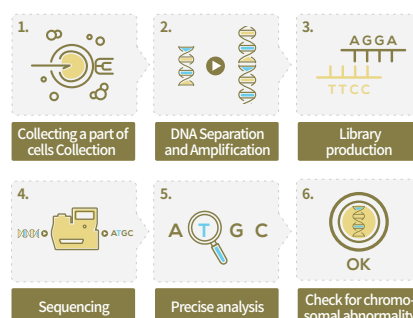
Who is a Candidate?

-  Woman over 35 years of age
-  Couples who have experienced several spontaneous miscarriages of unknown cause
-  Couples with several cycles of IVF that have not achieved pregnancy
-  Couples with a previous pregnancy with chromosomal abnormality

Inspection Principle

After the in vitro fertilization, the embryo is harvested from 3 to 5 days after the amplification of the DNA, and then analyzed by using the next generation genome sequencing technology, which is the latest analysis technology, to analyze the chromosome abnormality more quickly and accurately. Because of this principle, the Embryos with normal chromosomes can be screened

Undergoing Procedure



Proven normal detection rate from Clinical Test

According to the results of many overseas papers and clinical studies of famous international IVF centers, the proportion of normal embryos will decrease as the patient ages. In the range of 35 to 40 years old, blastomere (3rd day of embryo) stage is 20 to 30%, Blastocyst (5th day of Embryo) stage is 40 to 50%, those data are normal embryo detection rate and it is an international standard.

However, there are differences in the percentage of normal embryos depending on the individual characteristics of the patient and the status and stage of the embryo.

Result of clinical research

Classification of specimen	Number of Embryo	Age of applicant	Normal Embryo
NGS Basis of GENOBRO			
Blastomere	34	36.5±3.3	7 (20.6%)
Blastocyst	101	36.3±4.2	45 (44.6%)
Total	135	36.3±3.9	52 (38.5%)
Previous PGS TEST			
Blastomere	34	36.5±3.3	8 (23.5%)
Blastocyst	101	36.3±4.2	27 (26.7%)
Total	135	36.3±3.9	35 (25.9%)

GENOBRO was recognized for its outstanding accuracy than previous PGS test via Clinical Research