NM MEDICAL

Molecular & Genetic Diagnostics

Introducing

PRO GENOME

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PRO GENOME
The future is here

To change our future, we must know it.

Let's evolve from preventive
to predictive diagnosis
From generalized to
personalized treatment

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NM MEDICAL unveils a new world-class genetic lab in **Marine Lines**

The World of **ProGenome®**

Genetic disorders can impact your health today or in the future. Precisely why, NM Medical brings you its exclusive Genetic Testing facility with Next Generation Sequencing (NGS) to identify underlying genetic cause of any suspected disease. It helps you predict disease at an early stage and understand appropriate personalized treatment options.

ProGenome® brings a plethora of genetic tests across various health segments, under one roof

- Oncology
- Reproductive Health
- Wellness
- Inherited Diseases

Reproductive Health

Innovations in genomic medicine offers now brings you new opportunities in reproductive health. Genetic techniques are faster, more efficient, more flexible and provides better understanding of infertility and genetic diseases.

Noninvasive prenatal screening (NIPS/NIPT)

Preimplantation genetic diagnosis (PGD)

Preimplantation genetic testing (PGT/PGS)

Carrier screening

IVF response check

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why delay?

Prevent the risk of cancer.
Get yourself tested today.

ProGenome® brings you an opportunity
to predict cancer before it progresses.

Introducing BRCA Gene testing by NGS to help you make informed decisions on risk reduction strategies for breast and ovarian cancer and to tailor targeted treatment options.

What is ProGenome® BRCA Gene Test?

ProGenome® BRCA Gene Test is a simple blood test that uses DNA analysis to identify harmful changes (mutations) in either of the two tumour suppressor genes — **BRCA1 and BRCA2, creating significantly higher cancer risk particularly in the breast and ovaries.**

Who should opt for ProGenome® BRCA Gene Test?

- Personal history of breast or ovarian cancer diagnosed at young age (premenopausal)
- Family history of breast, ovarian, fallopian tube, peritoneal, prostate, or pancreatic cancer
- A relative with a known deleterious mutation in BRCA1 or BRCA2 genes
- Two or more relatives with ovarian cancer

What happens if a BRCA 1 or 2 Mutation is detected?

- A positive result doesn't mean you are certain to develop cancer
- You should meet a clinician to proactively manage your risk
- If you're already diagnosed with breast cancer the test will help guide treatment decisions

What makes ProGenome® BRCA Gene Test special?

- Uniform coverage across all coding exons and splice sites
- Efficient sequencing and accurate analysis for mutation hotpots and other mutations in exonic regions
- Detects SNVs, InDels, and large exon/gene deletions/duplications
- Screening from blood (Germline mutation screening) or from FFP block (Somatic testing)

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The future of a baby can be ensured inside the womb.

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Bringing you

Noninvasive Prenatal Screening

(NIPS / NIPT)

to help you detect various chromosomal abnormalities.

NIPS/NIPT is a simple blood test that analyzes cell-free DNA (cfDNA) circulating in the maternal blood, in order to detect chromosomal abnormalities like:

- **Down syndrome** (trisomy of chromosome 21)
- **Edwards syndrome** (trisomy of chromosome 18)
- **Patau syndrome** (trisomy of chromosome 13)
- **Turner syndrome** (having only one sex chromosome, an X)
- **Klinefelter syndrome** (having three sex chromosomes, two Xs and a Y)

At ProGenome, we are driven to go beyond the traditional screening tests for chromosome conditions, such as ultrasound and other outdated blood tests. **NIPS / NIPT is more accurate and can be opted in the 1st trimester itself, significantly reducing the need for invasive testing like amniocentesis or chorionic villus sample during early developmental stages where risk of miscarriage is high.**

Microdeletions testing can be offered along with NIPS test at ProGenome, to put forth more comprehensive assessment.

Reason why, we at ProGenome, encourage all pregnant women to opt for this revolutionary test to rule out any chromosomal abnormalities in the unborn child.

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From IVF to pregnancy, with

PREIMPLANTATION GENETIC SCREENING.

The goal of preimplantation genetic screening is to ensure that embryos with the highest chance of achieving a healthy pregnancy and child are used during IVF.

Indications FOR PGS can be opted when:

- **Advanced maternal age** = The risk of chromosomal abnormalities, such as Down Syndrome, in embryos increases with the age of the mother
- **Recurrent miscarriage** = Approximately 50% of miscarriages occur due to chromosomal abnormalities. In the case of miscarriages, 68% of embryos are chromosomally abnormal. Embryos that are chromosomally normal are more likely to result in live birth.
- **Chromosome abnormalities** = While a few chromosomal abnormalities are compatible with life, these babies may be born with birth defects and cognitive impairment. PGS screening detects major chromosome abnormalities allowing informed decisions about reproductive care.
- **Implantation failure** = Some chromosomal abnormalities impair the embryo's ability to implant into the uterus. Embryos that are chromosomally normal have a better chance of successful implantation.
- **Male factor infertility** = Male factor infertility (including abnormal quantity and quality of sperm) can increase the risk of chromosomal abnormalities in the embryo. PGS can aid in identifying chromosomally normal embryos

Preimplantation genetic diagnosis (PGD)

PGD is a test that can prevent the transmission of single gene disorders. Preimplantation genetic diagnosis (PGD) tests an embryo for a single, specific genetic disorder either parent may carry or be suspected of carrying, such as Huntington's disease or cystic fibrosis.

PGD test can be opted when:

Individuals and couples who are known carriers of a specific genetic disorder or have a family history of one. They have an increased risk of having a child with that genetic disorder.

Test Menu

Test Name	Instructions	Sample Type and Volume	Temp.	Method	Cut-Off		TAT (Days)
Y Chromosome Microdeletion	Provide detailed clinical history	Peripheral Blood (6 mL)	R (2-8°C)	PCR	M,T,W,Th,F,Sa	11:00 AM	6 Days
Fragile X (FMR1) Mutation Screen	Provide detailed clinical history	Peripheral Blood (6 mL)	R (2-8°C)	PCR	M,T,W,Th,F,	11:00 AM	7 Days
Cystic fibrosis gene Mutation (F508,G551D/R553X,G542X)	Provide detailed clinical history	Peripheral Blood (5 mL)	R (2-8°C)	PCR	M,T,W,Th,F,Sa	11:00 AM	10 Days
HPV Screening with reflex genotyping for High risk genotypes	LBC/ Viral transport media - provided by NM Medical	Thin Prep/ LBC/ Cervical brushings in Viral transport media; Or Cervical biopsy in viral transport media or normal saline; Oral swab; Parafin embedded tissue (10 ml)	A(15-22°C)/ R (2-8°C)	Real Time PCR	M,W,F;	11:00 AM	NEXT DAY: 1800 HRS
TORCH by PCR (Toxoplasma, CMV, Rubella and Herpes by PCR)	Please send duly filled , signed and stamped PNDT forms (Pre-Natal Diagnostic Test Form G, Form E,Copy of completed and duly signed Form F)	K2/K3 - EDTA Lavender top/Amniotic fluid/CSF/Urine in sterile container/ CVS in transport medium	EDTA - Plasma	Real Time PCR	T,Sa	11:00 AM	4 DAY: 1800 HRS
Toxoplasma DNA detection by PCR - Peripheral Blood / Cord blood	R (2-8°C)	K2/K3 - EDTA Lavender top (PCR)	R (2-8°C)	Real Time PCR	T,Sa	11:00 AM	5 DAY: 1800 HRS

Test Menu

Toxoplasma DNA detection by PCR - other samples	In case of Prenatal Sample Please send duly filled , signed and stamped PNDT (Pre-Natal Diagnostic Test Form G, Form E,Copy of completed and duly signed Form F.	Amniotic Fluid, CSF, Urine, CVS (3-5 ml)	R (2-8°C)	Real Time PCR	M,W,F;	11:00 AM	NEXT DAY: 1800 HRS
NIPS/NTPT	Follow sample collection process as mentioned in KIT. After sample collection rotate the streck tube 10 times clockwise and 10 times anti clockwise.(Please send duly filled , signed and stamped PNDT (Pre-Natal Diagnostic Test Form G & Form E)	Peripheral Blood collection in ProGenome provided tube only (10mL)	A(15-22°C)	NGS	M,T,W,Th,F,Sa	11:00 AM	10days
Beta Thalassemia - beta globin full gene sequencing (> than 50 Mutations)-Blood	Provide detailed clinical history. Send HPLC report if available	Peripheral blood (3 mL)	R (2-8°C)	PCR Sequencing	Daily	11:00 AM	7 days

Test Menu

HbE mutation analysis (Glu-26-lys)	Provide clinical details including Hemoglobinopathy variant analysis results, family history and blood transfusion history (if any)	Peipheral blood (3 mL)	R (2-8°C)	PCR - Sequencing	M,T,W,Th,F,	11:00 AM	7 Days
Sickle Cell DNA PCR	Provide detailed clinical history.	Peripheral blood (3 mL)	R (2-8°C)	PCR	M,T,W,Th,F,Sa	11:00 AM	5 Days
PGS testing 3rd Day Biopsy - 1 to 4 Embryos	Kindly Contact the Lab for detailed instructions and transportation box. Pls inform Lab prior to collection	Embryonic cell(s) ( )	Frozen	NGS	M,T,W,Th,F	9:00 AM	NEXT DAY: 1800 HRS
PGS testing 3rd Day Biopsy - 12 Embryos	Kindly Contact the Lab for detailed instructions and transportation box. Pls inform Lab prior to collection	Embryonic cell(s) ( )	Frozen	NGS	M,T,W,Th,F	9:00 AM	NEXT DAY: 1800 HRS
PGS testing 3rd Day Biopsy - 12-15 Embryos	Kindly Contact the Lab for detailed instructions and transportation box. Pls inform Lab prior to collection	Embryonic cell(s) ( )	Frozen	NGS	M,T,W,Th,F	9:00 AM	NEXT DAY: 1800 HRS

Test Menu

PGS testing 3rd Day Biopsy - 6 Embryos	Kindly Contact the Lab for detailed instructions and transportation box. Pls inform Lab prior to collection	Embryonic cell(s) ( )	Frozen	NGS	M,T,W,Th,F	9:00 AM	NEXT DAY: 1800 HRS
PGS testing 3rd Day Biopsy - 8 Embryos	Kindly Contact the Lab for detailed instructions and transportation box. Pls inform Lab prior to collection	Embryonic cell(s) ( )	Frozen	NGS	M,T,W,Th,F	9:00 AM	NEXT DAY: 1800 HRS
PGS testing 5th Day Biopsy - >12 Embryos	Kindly Contact the Lab for detailed instructions and transportation box. Pls inform Lab prior to collection	Embryonic cell(s) ( )	Frozen	NGS	M,T,W,Th,F,Sa	11:00 AM	10days
PGS testing 5th Day Biopsy - 1 to 4 Embryos	Kindly Contact the Lab for detailed instructions and transportation box. Pls inform Lab prior to collection	Embryonic cell(s) ( )	Frozen	NGS	M,T,W,Th,F,Sa	11:00 AM	10days
PGS testing 5th Day Biopsy - 12 Embryos	Kindly Contact the Lab for detailed instructions and transportation box. Pls inform Lab prior to collection	Embryonic cell(s) ( )	Frozen	NGS	M,T,W,Th,F,Sa	11:00 AM	10days

Test Menu

PGS testing 5th Day Biopsy - 6 Embryos	Kindly Contact the Lab for detailed instructions and transportation box. Pls inform Lab prior to collection	Embryonic cell(s) ( )	Frozen	NGS	M,T,W,Th,F,Sa	11:00 AM	10days
PGS testing 5th Day Biopsy - 8 Embryos	Kindly Contact the Lab for detailed instructions and transportation box. Pls inform Lab prior to collection	Embryonic cell(s) ( )	Frozen	NGS	M,T,W,Th,F,Sa	11:00 AM	10days

ProGenome® - fully automated lab, including Genomics at Marine Lines, Mumbai

Trusted
Most-trusted and recommended genetic lab

One stop solution
Comprehensive range of offerings

Expert Guardians
Expert genetic counsellors who help you choose the right test and interpret results

Accurate and reliable
World-class equipment and test protocols that eliminate human error

Most economical
Appropriate test selection that's cost-efficient