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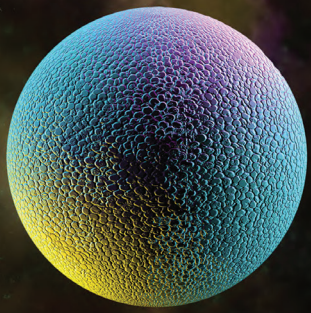
PGT-M

Preimplantation Genetic Testing – Monogenic disorders



What is **Preimplantation Genetic Testing (PGT)?**

PGT is a type of genetic testing that is performed on embryos created through in vitro fertilization (IVF) to prioritize transfer of embryos.

What is **Preimplantation Genetic Testing – Monogenic disorders (PGT-M)?**

PGT-M is a genetic testing platform designed to identify known genetic abnormalities in embryos.

This test is recommended for the couple who have the risk of passing the genetic condition to the offsprings (Beta Thalassaemia, *SMA, PKD etc).

Benefits

1. Identify and transfer only healthy embryos
2. Significantly decreases the chances of having a child with genetic abnormalities
3. Reduces the need to make difficult pregnancy decisions in case of (affected) abnormal prenatal diagnosis
4. Reduces emotional and financial burden
5. Applicable to *AD, AR, X-Linked recessive HLA Typing#

*SMA - Spinal Muscular Atrophy, PKD - Polycystic Kidney Disease, AD - Autosomal Dominant AR - Autosomal Recessive, HLA - Human Leukocyte Antigen

#Discuss for Lab requirements

Efficient Array Based PGT-M Testing

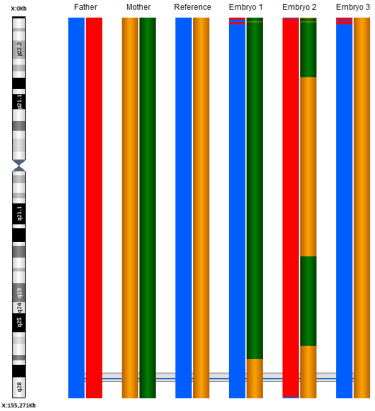
- Uses SNPs and Genome-wide Linkage
- Screens multiple region in parallel
- Standard workflow for all samples
- Automated data interpretation

How is Array based testing done?

Prospective parents should gain a comprehensive understanding of testing process & its implications on consultation with clinicians & lab genetic counselors.

Embryos produced through IVF are tested for the informative SNP associated with the gene of interest using day 5 embryo biopsies.

Haplo block patterns created by SNP array-based testing helps in prioritizing embryos for transfer.



In this example, PGT-M Interpretation of embryo biopsies is based on haplotype pattern identified, which is derived based on mode of inheritance, disease status of the couple and reference samples.

Image only for representation purpose

Pre PGT work up

- Performed on couple + reference sample (affected or unaffected child or grandparents) samples: TAT 21 working days.
- Pre-PGT and day 5 trophectoderm biopsy samples can be sent together
- PGT- A is included in this test

Sanger based technique is also available*

Genetic Counseling

FREE pre & post test genetic counseling available with our experts for your patients

***Contact team:** pgspgd@medgenome.com