

## Anti Ovary Antibody (AOA)

These antibodies destroy the ovarian tissue and may cause premature ovarian failure.

## Anti-Mullerian Hormone (AMH)

This hormone can be measured during any phase of the menstrual cycle and helps in predicting the ovarian reserve.

## Complex Panels

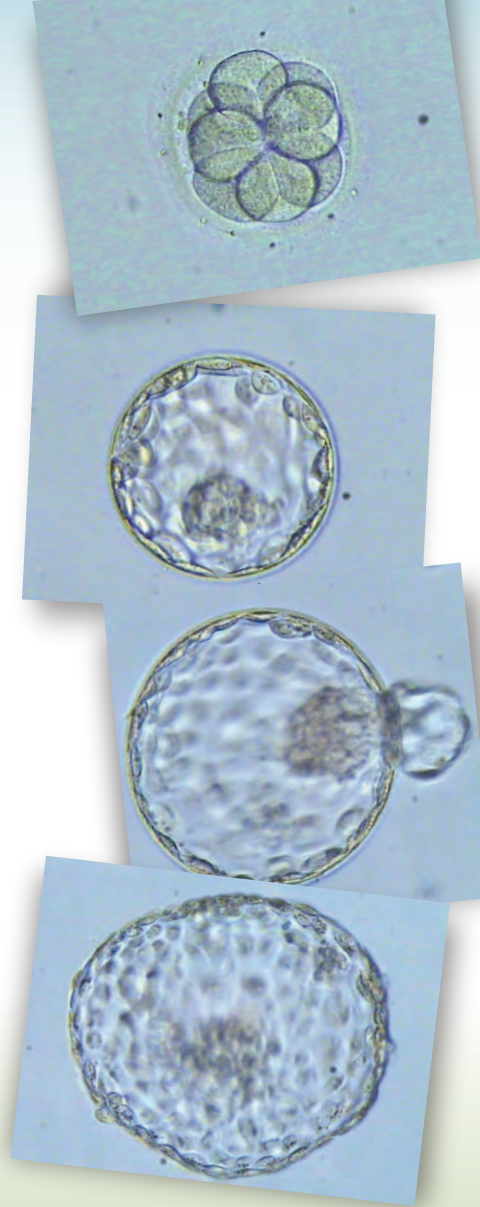
1. Recurrent Pregnancy Loss Panel (APA, ANA, ATA, Coag Panel, ETA, IgG, IgM, IgA, RPh & NKa)
2. Recurrent Implantation Failure Panel (APA, ANA, ATA, ETA, IgG, IgM, IgA, RPh & NKa)
3. IVF Screen Panel (APA, ATA, RPh & NKa)
4. Pregnancy Monitor Panel (RPh & APA)
5. NK Panel (RPh & NKa)
6. Ovarian Reserve Panel (AOA, AMH, Inhibin B, Day 3 FSH, E2, LH & Fragile X)
7. Premature Ovarian Failure Panel (APA, ANA, ATA, AOA, AMH & Fragile X)
8. PCO panel (GTT 3 hrs, Fasting Insulin, Testosterone, Free testosterone, AMH & SHBG)
9. Endometriosis Panel (APA, ANA & CA 125)

## Method

Blood is collected with different types of additives and shipped to FCLab for testing.

## How to start?

1. Your physician shall order the test and collect the blood samples needed.
2. Blood samples shall be packed in the mailing kits provided by FCLab.
3. Your physician shall call FedEx for a pickup.
4. Results shall be mailed to your physician in 7-10 business days



[WWW.FCLAB.US](http://WWW.FCLAB.US)



**Fertility & Cryogenics  
Lab**

**Reproductive Immunology**  
(Immunologic Endometrial Competency)

8635 Lemont Road  
Downers Grove, IL 60516

Phone: (630) 427-0300

Fax: (630) 427-0302

[www.fclab.us](http://www.fclab.us)

[info@fclab.us](mailto:info@fclab.us)

## Reproductive Immuno Phenotype (RIPh)

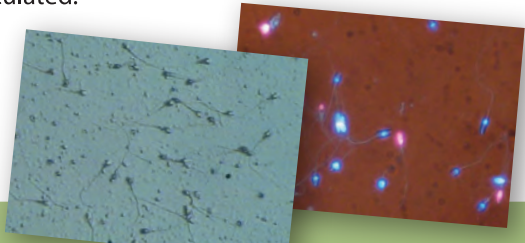
This test looks at a broad range of immune cells that, when abnormally elevated, increase the risk of recurrent pregnancy loss (RPL). When elevated these cells may directly or indirectly mount an immune response against a developing embryo. This test is done using a Flowcytometer.

## Natural Killer Cells Activation Assay with suppression (NKa)

Patient's WBC (Effector Cells) are isolated and co-cultured with an established leukemia cell line (Target Cells), Patient's Natural Killer cells will attack the target cells. When the percentage of phagocytosis is elevated, these cells may mount an immune response against the embryo. Co-cultures are also done with suppression using IVIg and Intralipid in vitro to predict the patient response to immunosuppressant. This test is done using a Flowcytometer.

## Embryo Toxicity Assay (ETA)

A common cause of miscarriage, Embryo Toxicity Factor (ETF) is a cytokine that is secreted by the immune system's white blood cells in reaction to pregnancy tissue. Increased production of ETF by white blood cells during pregnancy may trigger an immune response that recognizes the embryo as a foreign body and may assault the embryo to rid the body of it leading to a miscarriage. Mouse embryos are cultured in media supplemented with patient's serum and the percentage of atretic embryos is calculated.



## Anti-Phospholipid Antibody Panel (APA)

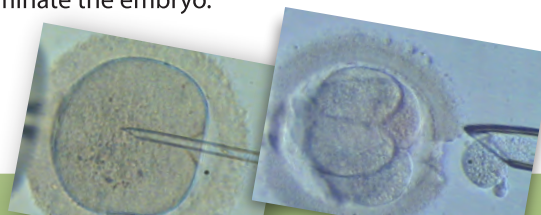
- Anti-Cardiolipin Antibody.
- Anti-Phosphatidylserine Antibody.
- Anti-Phosphatidic Acid Antibody.
- Anti-Phosphatidylglycerol Antibody.
- Anti-Phosphatidylinositol Antibody.
- Anti-Phosphatidylethanolamine Antibody.
- Anti-Phosphatidylcholine Antibody.

Phospholipids are a main component of the cell membrane. Antibody against phospholipids in the blood attach to the cell membrane. Positive APA is an autoimmune disorder that results in an increased blood clotting tendency that can cut off blood flow to the fetus. These Antibody can also cause the placenta to have a weak attachment to the uterine lining and may cause recurrent miscarriages. The panel is run for IgA, IgM and IgG total 21 tests.

## Anti-Nuclear Antibody Panel (ANA)

- Anti-dsDNA Antibody
- Anti-Jo-1 Antibody
- Anti-La (SS-B) Antibody
- Anti-Ro(SS-A) Antibody
- Anti-Scl-70 Antibody
- Anti-Sm Antibody
- Anti-Sm/RNP Antibody

These Antibody can destroy cells leading to disorders like lupus and rheumatoid arthritis, and cause recurrent pregnancy loss or infertility. The ANA Antibody cause inflammation in the body or in the uterus during implantation. Women with high levels of these Antibody may be unable to become pregnant or carry a pregnancy to term as a result. Anti dsDNA Antibody may cause the woman's body to recognize her own embryos as foreign organisms and mistakenly trigger an immunological attack to eliminate the embryo.



## Anti Thyroid Antibody Panel (ATA)

• Anti-thyroid peroxidase (TPO) Antibody  
This test detects Antibody directed against the thyroid peroxidase (TPO) enzyme. A positive test for these Antibody indicates an increased risk for miscarriage.

• Anti-thyroglobulin (Tg) Antibody  
Anti-thyroglobulin Antibody can be found in women with infertility and recurrent miscarriages. The toxins released due to destruction of thyroglobulin during embryo implantation and gestation may cause failure of implantation and miscarriage.

## Coagulation Panel

• Lupus Anticoagulant (LA)  
Lupus is a systemic autoimmune disease that mainly affects women of non-European descent, where the body attacks its own cells. One component of the disease is a specific type of anti-phospholipid antibody in the bloodstream that can cause abnormal blood clotting. Lupus anticoagulant testing is used to help determine the cause of unexplained blood clotting and/ or recurrent pregnancy loss.

• Prothrombin Time (PT), activated Partial Thromboplastin Time (aPTT)  
Both these tests are done in tandem and help determine the variety of factors involved in the normal blood clotting process and the pathway involved. Clotting factor disorders result either in longer clotting time and hemorrhage, or excessive clotting with thrombosis and micro emboli. Deficiencies have been associated with failed embryo implantations and recurrent pregnancy loss.

## Immunoglobulin Panel (Total IgA, IgG & IgM)

The immunoglobulin screening panel detects total Antibody (IgA, IgG & IgM) in the blood. A higher than normal titer of the total antibody screen will be further analyzed to determine if the finding is considered to be clinically significant.