What are the BRCA1 and BRCA2 genes?

The BRCA1 and BRCA2 genes are the two most important genes related to the development of hereditary breast and ovarian cancer. These genes produce proteins that help repair cell damage. If one of these genes has a mutation or alteration, the repair function of the protein is deficient or absent. This leads to a greater probability of accumulating new genetic alterations that can bring about the development of a tumor.

A woman’s risk of getting breast or ovarian cancer, as well as other related cancers, increases significantly if she inherits a damaging mutation in the BRCA1 or BRCA2 gene.

What is the Lab Genetix Breast Cancer (LG-BRCA) Test?

It is the most advanced genetic test for early identification of predisposition to inherited cancer. LG-BRCA test uses Next Generation Sequencing (NGS) to analyze genetic information present in a panel of 21 genes, including BRCA1 and BRCA2 genes, in order to locate harmful mutations.

The presence of a change or mutation in one of these genes assumes that the female carrier has an increased risk of developing breast and ovarian tumors, or other related cancers.

What genes are included in the Breast Cancer (LG-BRCA) test?

In addition to the BRCA1 and BRCA2 genes, the LG-BRCA test analyzes 19 more genes associated with risk of breast and ovarian cancer, which makes it a more complete test:

<table>
<thead>
<tr>
<th>Gene</th>
<th>BRCA2</th>
<th>CDH1</th>
<th>PTEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP53</td>
<td>PALB2</td>
<td>STK11</td>
<td>ATM</td>
</tr>
<tr>
<td>BARD1</td>
<td>BRIPI</td>
<td>CHEK2</td>
<td>MLH1</td>
</tr>
<tr>
<td>MSH2</td>
<td>MSH6</td>
<td>MRE11A</td>
<td>MUTYH</td>
</tr>
<tr>
<td>NBN</td>
<td>PMS2</td>
<td>PMS1</td>
<td>RAD51C</td>
</tr>
<tr>
<td>RAD50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Asia, Pakistan has the highest rate of breast cancer. Young women also present at advanced stage of breast cancer:

1 In 9 Pakistani Women Has Become The Patient Of Breast Cancer

The Lab Genetix Breast Cancer (LG-BRCA) test allows us to analyze 21 genes, including BRCA1 and BRCA2, related to breast and ovarian cancer to locate harmful mutations in people with a family or personal history of these types of cancer.
Lab Genetix Breast Cancer (LG-BRCA) is a complete genetic screening test that analyzes 21 genes related to breast and ovarian cancer in order to locate mutations that increase the risk of developing these types of cancer.

A positive test result may also have important health implications for family members, and even for future generations.

Who should do the Test?

Breast Cancer (LG-BRCA) is a simple and complete test for all women who want to have the maximum information about their personal risk of developing cancer.

The information provided by LG-BRCA test allows you to customize the breast and ovarian cancer prevention programme. It is suitable for:

- Women diagnosed with breast cancer and BRCA1 and BRCA2 negative genetic test. In this type of patients LG-BRCA test can find a mutation in up to 4% of women.
- Women with a family member diagnosed with breast and ovarian cancer.
- Women of general population without known increased risk.

Why take the Lab Genetix Breast Cancer (LG-BRCA) Test?

The results of the test, if positive, can be used to adopt personalized follow-up and early detection measures for the patient and their relatives.

- Carriers already diagnosed will be more likely to have another type of cancer. In these cases it is essential to perform intensive tests that can locate a cancer in its early stages, when the probability that it will be successfully treated is greater.
- In the case of people with mutations, there are several preventive options to deal with the cancer risk. These measures include intensified screening for early diagnosis.

How to perform the test?

1. Request and informed consent
2. Sample drawing
3. Shipping to Lab Genetix
4. NGS Sequencing
5. Results

For More Information Contact Us

G-3, Al-Hafeez Business Center, 89-B/III, Gulberg-III, Lahore, Pakistan

+92 - 42 - 35872143 (-5)
info@labgenetix.com