



## UNDERSTANDING YOUR CANCER AND PERSONAL TREATMENT PATH

FoundationOne®Liquid uses a blood sample to provide a more complete picture of your cancer and help open up treatment possibilities for you<sup>1,2</sup>

See more, do more



FOUNDATION  
MEDICINE®



# FoundationOne Liquid searches for multiple cancer mutations in your blood sample to increase your chances of finding a more precise treatment<sup>1,2</sup>

## Why is it important to search for mutations in your cancer?

If certain mutations are found in your cancer cells' DNA, your doctor may be able to give you a more precise and personalised treatment based on this finding.<sup>3-7</sup>

FoundationOne Liquid searches for multiple mutations in your cancer cells' DNA and helps you and your doctor optimise and personalise your treatment plan.<sup>1,2</sup>

## What is FoundationOne Liquid?

### Who is it for?

FoundationOne Liquid is for people with all types of solid tumours, e.g. lung or breast cancer (as opposed to blood cancers, like leukaemia\*).<sup>2</sup> Your doctor can explain to you if your tumour qualifies for FoundationOne Liquid testing.

### What does it use?

A blood sample (liquid biopsy).<sup>2</sup>

### How does it work?

Cancer cells often release DNA that circulates freely in the blood. FoundationOne Liquid extracts this DNA and uses comprehensive genomic profiling to search for mutations in 70 cancer-related genes.<sup>2</sup>

### How could it help?

It may help open up new treatment possibilities, including therapies and clinical trials.<sup>1,2</sup>



### When can it be used?

- When taking a sample of tissue from your cancer (a tissue biopsy) is not possible or when a cancer tissue sample that has already been taken is not suitable for analysis<sup>1,2</sup>
- To provide an "update" on how your cancer is responding to treatment without having to take a tissue sample<sup>1,2</sup>
- Even if you've already had a test it might still be beneficial to test your cancer again with FoundationOne Liquid as it may cover genes that have not previously been tested<sup>1,2</sup>

\* Please note: despite using blood, FoundationOne Liquid is not for blood-based cancers, like leukaemia.

Blood-based cancers can be tested with the Foundation Medicine test FoundationOne®Heme. Please talk to your cancer care team for more information.

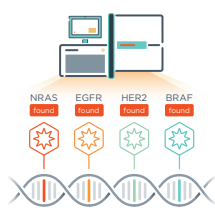
## What happens to your sample?

### BLOOD SAMPLE



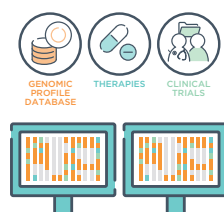
A blood sample is taken and sent to a Foundation Medicine laboratory

### COMPREHENSIVE GENOMIC PROFILING



Your DNA is extracted from your sample. The DNA is searched for mutations possibly responsible for your cancer<sup>2</sup>

### DATA ANALYSIS



Mutations found are evaluated by a team of experts for treatment options, such as targeted therapies or immunotherapies, or relevant clinical trials, using a large cancer information database<sup>8,9</sup>

### FOUNDATION MEDICINE REPORT



Your care team will receive a comprehensive report, including the details on your tumour profile, 14 days after receipt of the sample at the laboratory<sup>9</sup>

The Foundation Medicine information database is continuously updated based on new research, clinical trials, and increasing amount of patient genomic profiles from clinical routine.<sup>8</sup> This helps ensure when a Foundation Medicine Report is created it is based on the latest scientific data.

**Please note:** All patient data are anonymised, stored in a secure database and, with your consent, used to help researchers improve cancer care.

**FoundationOne Liquid results are sent to your doctor in a comprehensive report<sup>9</sup>**

# The FoundationOne Liquid report may help guide your treatment plan<sup>9</sup>

## Page 1 of an example FoundationOne Liquid report<sup>9</sup>

**FOUNDATIONONE LIQUID**

PATIENT: Sample, Jane TUMOR TYPE: Lung Adenocarcinoma REPORT DATE: 01 Jan 2018

ABOUT THE TEST: FoundationOneLiquid<sup>®</sup> is a next generation sequencing (NGS) assay that identifies clinically relevant genomic alterations in circulating tumor DNA.

**1 PATIENT**

DISEASE: Lung Adenocarcinoma  
NAME: Not Given  
DATE OF BIRTH: Not Given  
SEX: Not Given  
MEDICAL RECORD #: Not Given

**2 Biomarker Findings**

No reportable biomarker findings were detected.

**Genomic Findings**

For a complete list of the genes covered, please refer to the Appendix.  
**EGFR** exon 19 deletion (L747\_A750>P)  
**TP53** C242G

7 Therapies with Clinical Benefit  
0 Therapies with Lack of Response  
10 Clinical Trials

**PHYSICIAN**

ONCOLOGIST: Not Given  
MEDICAL FACILITY: Not Given  
ADDITIONAL RECIPIENT: Not Given  
MEDICAL FACILITY ID: Not Given  
PATHOLOGIST: Not Given

**SPECIMEN**

SPECIMEN ID: Not Given  
SPECIMEN TYPE: Blood  
DATE OF COLLECTION: Not Given  
SPECIMEN RECEIVED: Not Given

**BIOMARKER FINDINGS**

There are no Biomarker Findings for this sample

**GENOMIC FINDINGS**

EGFR - exon 19 deletion (L747\_A750>P) 0.20%

**10 Trials** see p. 8

**3c**

**GENE ALTERATIONS WITH NO REPORTABLE THERAPEUTIC OR CLINICAL TRIALS OPTIONS**

For more information regarding biological and clinical significance, including prognostic, diagnostic, germline, and potential chemosensitivity implications, see the Genomic Findings section.

**TP53 - C242G** p. 3

NOTE: Genomic alterations detected may be associated with activity of certain FDA approved drugs. However, the details listed in this report may have limited clinical evidence in the patient's tumor type. Further therapeutic options on the basis of identified alterations or other potential drug efficacy for this patient may not have been fully evaluated in order of clinical evidence for the patient's tumor type. The appropriate clinical evidence for the patient's tumor type is not provided in this report.

\*NA: Not Applicable. Mutual Allele Frequency is not applicable for copy number amplifications or rearrangements.

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- 1 Your details, your doctor's details and information about your specimen (the blood sample that was analysed)
- 2 Biomarker findings and genomic findings: A summary of mutations and other characteristics found in your cancer to help understand which targeted therapies, immunotherapies or clinical trials may be relevant to you.
- 3 Depending on current scientific knowledge and your cancer's mutations, the Foundation Medicine report may indicate:
  - a Approved therapies according to the respective tumour type
  - b Therapies approved in another tumour type
  - c Clinical trials for you and your doctor to discuss together

Page 1 provides a summary of your results, while the remaining pages give more details.

## Important considerations about your results

### Sometimes the test can't be performed

This may be because not enough cancer DNA was found in your blood sample. In this case, your doctor will discuss with you if it may be possible to take a test that uses a sample of tissue from your cancer.

### Sometimes no mutations can be found

This information may still be helpful to your doctor in deciding the next steps for your treatment plan.

### If a mutation is found, several factors affect if there will be therapies or clinical trials available

If a mutation is found there may be therapies or clinical trials available for your mutation, but this depends on whether the therapy or trial is available in your country or is appropriate for you. It is also possible that there may not yet be any therapies or trials for your mutation.

### FoundationOne Liquid cannot predict how your cancer will respond to a therapy

If you receive a therapy or enter a clinical trial mentioned in the report it does not mean that the therapy will work as there are many factors that influence the efficacy.

## How to order?



Your doctor orders the test



Your doctor or nurse collects a blood sample



Your blood sample is sent to the Foundation Medicine laboratory



DNA is extracted from your sample and analysed



Your doctor receives the report

It takes around 14 days from receipt of your sample at the Foundation Medicine laboratory to your doctor receiving the report

*Discuss the findings of your report and the next steps for your personalised treatment plan with your doctor*



# FoundationOne Liquid helps open up treatment possibilities for your cancer<sup>1,2</sup>

## Where can you find more information?



For more information on comprehensive genomic profiling and FoundationOne Liquid, please visit [www.rochefoundationmedicine.com](http://www.rochefoundationmedicine.com)

Pricing and reimbursement is dependent on your country, please contact your local Foundation Medicine team for more information

<Space for local patient Medical Information contact information>

## Glossary

<b>Biomarker</b>	A molecule that is a sign of a normal or abnormal process, or of a condition or disease. A biomarker may be used to see how well the body responds to a treatment for a disease or condition. <sup>10</sup>
<b>Biopsy</b>	The removal of cells or tissues for examination by a pathologist. <sup>11</sup>
<b>Cell</b>	The basic building blocks of all living things. <sup>12</sup>
<b>Clinical trial</b>	Research studies that use human volunteers to test new drugs or other treatments to find out whether they are better than the current, standard treatment. Before giving the treatment to people, it is studied by scientists. If these studies suggest it will work, the next step is to test it in patients. <sup>13</sup>
<b>Comprehensive genomic profiling</b>	A type of cancer test that looks for several cancer-related DNA mutations across a broad region of the cancer cells' DNA in a single test. <sup>2,14</sup>
<b>DNA</b>	The genetic "blueprint" found in the nucleus (centre) of each cell. DNA holds genetic information on cell growth, division, and function. <sup>15</sup>
<b>Gene</b>	A section of DNA that contains the information to control the development one or more of a person's traits. A gene can be passed from parent to offspring. <sup>16,17</sup>
<b>Immunotherapy</b>	Treatments that use the body's immune system to fight cancer. <sup>18</sup>
<b>Mutation</b>	A change in the DNA of a cell. All types of cancer are thought to be due to mutations that damage a cell's DNA. <sup>19</sup>
<b>Solid tumour</b>	An abnormal mass of tissue that usually does not contain cysts or liquid areas e.g. lung or breast cancer. Cancers of the blood (leukaemias) generally do not form solid cancers. <sup>20</sup>
<b>Targeted therapy</b>	Treatment that attacks some part of cancer cells that makes them different from normal cells. Targeted therapies tend to have different side effects to chemotherapy drugs with broader action. <sup>21,22</sup>

### References

1. Clark TA *et al.* *J Mol Diagn* 2018; 20: 686–702; 2. FoundationOne®Liquid Technical Specifications, 2018. Available at: <https://www.foundationmedicine.com/genomic-testing/foundation-one-liquid> (Accessed January 2019); 3. Baumgart M *et al.* *Am J Hematol Oncol* 2015;11:10–13; 4. Schwaederle M, Kurzrock R. *Oncoscience* 2015; 2:779–780; 5. NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines). Non-small cell lung cancer. V.2.2019, 2018. Available at: [https://www.nccn.org/professionals/physician\\_gls/recently\\_updated.aspx](https://www.nccn.org/professionals/physician_gls/recently_updated.aspx) (Accessed January 2019); 6. Ohashi K *et al.* *Clin Cancer Res* 2013; 19: 2584–2591; 7. Rozenblum AB *et al.* *J Thorac Oncol* 2017;12:258–268; 8. Foundation Insights. Available at: <https://www.foundationmedicine.com/insights-and-trials/foundation-insights> (Accessed January 2019); 9. Data on file: FoundationOne®Liquid Sample Report, 2018; 10. The NCI Dictionary of Cancer Terms. Biomarker. <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/biomarker> (Accessed January 2019); 11. The NCI Dictionary of Cancer Terms. Biopsy. Available at: <https://www.cancer.gov/publications/dictionaries/cancer-terms/search?contains=false&q=biopsy> (Accessed January 2019); 12. American Cancer Society Glossary. Cell. Available at: <https://www.cancer.org/content/cancer/en/cancer/glossary.html?term=cell> (Accessed January 2019); 13. American Cancer Society Glossary. Clinical trials. Available at: <https://www.cancer.org/content/cancer/en/cancer/glossary.html?term=clinical+trials> (Accessed January 2019); 14. Frampton GM *et al.* *Nat Biotechnol* 2013; 31: 1023–1031; 15. The American Cancer Society Glossary. Deoxyribonucleic acid. Available at: <https://www.cancer.org/content/cancer/en/cancer/glossary.html?term=deoxyribonucleic+acid> (Accessed January 2019); 16. The NCI Dictionary of Cancer Terms. Gene. Available at: <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/gene> (Accessed January 2019); 17. Merriam-Webster Dictionary. Gene. Available at: <https://www.merriam-webster.com/dictionary/gene> (Accessed June 2019); 18. American Cancer Society Glossary. Immunotherapy. Available at: <https://www.cancer.org/content/cancer/en/cancer/glossary.html?term=immunotherapy> (Accessed January 2019); 19. American Cancer Society Glossary. Mutations. Available at: <https://www.cancer.org/content/cancer/en/cancer/glossary.html?term=mutation> (Accessed January 2019); 20. The NCI Dictionary of Cancer Terms. Solid tumour. Available at: <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/solid-tumour> (Accessed January 2019); 21. American Cancer Society Glossary. Targeted therapy. Available at: <https://www.cancer.org/content/cancer/en/cancer/glossary.html?term=targeted+therapy> (Accessed January 2019); 22. American Cancer Society. What is targeted cancer therapy? Available at: <https://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/targeted-therapy/what-is.html> (Accessed June 2019).

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