

# Solid tumour test menu

The Sonic Genetics solid tumour test menu ranges from single gene FISH probes to comprehensive genomic profiling.



## Comprehensive genomic profiling

FoundationOne<sup>®</sup>CDx is a validated pan-cancer comprehensive genomic profile assay<sup>1,2</sup> that provides coverage of more than 300 genes known to drive cancer, using technology which interrogates relevant, cancer-related regions within these genes. It also covers non-coding genes and intronic regions (non-coding regions). The assay provides a platform that evaluates base substitutions, insertions, deletions, copy number alterations and rearrangements, together with tumour mutational burden (TMB) and microsatellite instability (MSI). This pan-cancer comprehensive service provides a personalised genomic profile of your patient's tumour, to inform clinical decision making.<sup>1,2</sup> Where possible, FoundationOneCDx reports link your patient's genomic profile to potential therapies and international clinical trials which have shown therapeutic benefit.

We also facilitate access to FoundationOne<sup>®</sup>Liquid CDx, which is a liquid biopsy comprehensive genomic profiling service for patients with solid tumours.<sup>3,4,5</sup>

Cost (for solid or liquid biopsy): \$3,950\*

## Genomic profiling

The full Find It<sup>®</sup> Cancer Hotspot panel provides coverage of more than 140 hotspots (targets) across no less than 30 genes. The full Find It panel is designed to provide clinically relevant and actionable information for common mutations found in most solid tumour types, for \$595.\*

If the patient has NSCLC, metastatic melanoma, metastatic colorectal cancer or glioma, and meets the appropriate Medicare rebate criteria, they will be able to access the full Find It panel at a discounted price of \$350.\*

Both the focused (detailed below) and full Find It panels provide guidance when choosing targeted therapies. They can also identify resistance mutations and include potentially relevant Australian clinical trial options for your patient.

## Focused mutation testing (including EGFR, KRAS/NRAS and BRAF)

The focused Find It Cancer Hotspot panels provided by Sonic Genetics test key genes for non-small cell lung cancer (NSCLC), melanoma, colorectal cancer and glioma, at no cost to the patient<sup>†</sup>. We also provide focused breast, endometrial and GIST panels for \$350\* (no Medicare rebate).

## FISH probes (e.g. ROS1, ALK, PTEN)

FISH probes provide genetic information on specific gene loci, identifying additions, deletions, rearrangements and copy number alterations. This testing methodology allows for quick turnaround times compared to NGS technology. Costing of FISH testing is complex, due to the numerous Medicare rebates available. For accurate and up-to-date pricing, please contact Sonic Genetics or your local Sonic pathology practice.

A comprehensive library of FISH probes is available. Please review our website or contact your local Sonic pathology practice if you are interested in a specific gene or FISH test. For further information, please visit [www.sonicgenetics.com.au/our-tests/oncology-solid-malignancies](http://www.sonicgenetics.com.au/our-tests/oncology-solid-malignancies).

## Gene signature assay

Prosigna<sup>®</sup> is a clinically validated gene expression assay, designed to assess the risk of distant recurrence in post-menopausal women with hormone receptor-positive breast cancer. Prosigna also determines the tumour's intrinsic subtype (luminal A, luminal B, HER2-enriched, basal-like), which can provide insight into the patient's potential response to chemotherapy. This information can be used to help in decision-making regarding adjuvant chemotherapy.

Prosigna testing is performed in Australia to ensure a 10-business-day turnaround time.

Cost: \$3,300\*

1. Frampton G, et al. *Nat Biotechnol*. 2013; 31(11):1023-1031  
2. FoundationOneCDx Technical Specifications, 2020  
3. Clark T, et al. *J Mol Diagn*. 2018; 20(5):686-702

4. FoundationOneLiquid CDx Technical Specifications, 2020  
5. Woodhouse R, et al. *PLoS ONE*. 2020; 15(9): e0237802

## Solid tumour test menu

| Genetic testing by tumour type |  |  |
|--------------------------------|--|--|
| Tumour type                    | Molecular testing  | FISH/IHC testing   |
| Lung cancer                    | Focused Find It panel;<br>Full Find It panel;<br>FoundationOneCDx              | ALK IHC, ALK FISH;<br>ROS1 IHC, ROS1 FISH;<br>PD-L1 IHC  |
| Colorectal cancer*             | Focused Find It panel;<br>Full Find It panel;<br>FoundationOneCDx              | Mismatch repair gene IHC: MLH1, MSH2, MSH6, PMS2   |
| Melanoma                       | Focused Find It panel;<br>Full Find It panel;<br>FoundationOneCDx              |  |
| Sarcoma                        | Please contact your local Sonic pathology practice                             | Please refer to the FISH probe table below or contact your local Sonic Histopathologist.   |
| Breast cancer*                 | Focused Find It panel;<br>Full Find It panel;<br>Prosigna;<br>FoundationOneCDx | ER, PR, HER2 IHC;<br>HER2 ISH  |
| Endometrial cancer             | Focused Find It panel;<br>Full Find It panel;<br>FoundationOneCDx              | MMR IHC, p53 IHC   |
| GIST                           | Focused Find It panel;<br>Full Find It panel;<br>FoundationOneCDx              |  |
| Glioma                         | Focused Find It panel;<br>Full Find It panel;<br>FoundationOneCDx              | 1p/19q co-deletion FISH;<br>EGFR amplification by FISH   |
| Any solid tumour               | Full Find It panel;<br>FoundationOneCDx;<br>FoundationOneLiquid CDx            | Please refer to our FISH catalogue at <a href="http://www.sonicgenetics.com.au">www.sonicgenetics.com.au</a> or contact your local Sonic Histopathologist. |

| Comprehensive genomic profiling |  |  |
|---------------------------------|--|--|
| Name                            | Genes tested   | Clinical utility   |
| FoundationOneCDx                | Validated pan-cancer test (324 genes, TMB and MSI gene signatures) | Provides a comprehensive genomic profile designed to highlight alterations that may lead to additional treatment options for the doctor and patient to consider. Potentially relevant global clinical trials may also be included in the report. |

| Genomic profiling               |                        |   |
|---------------------------------|------------------------|---|
| Name                            | Genes tested           | Clinical utility  |
| Full Find It panel <sup>†</sup> | Pan-cancer (≥30 genes) | Provides information on hotspot mutations. This can assist in therapy selection and identifies potentially relevant national clinical trials. |

| Focused mutation testing              |                                  |   |
|---------------------------------------|----------------------------------|---|
| Name                                  | Genes tested                     | Clinical utility  |
| NSCLC Find It panel <sup>†</sup>      | BRAF, EGFR, ERBB2, KRAS, MET     |   |
| Melanoma Find It panel <sup>†</sup>   | BRAF, KIT, NRAS                  |   |
| Colorectal Find It panel <sup>†</sup> | BRAF, KRAS, NRAS, PIK3CA         | Provides information on hotspot mutations. This can assist in therapy selection and identifies potentially relevant national clinical trials. |
| Glioma Find It panel <sup>†</sup>     | BRAF, IDH1, IDH2, TP53           |   |
| Breast Find It panel                  | AKT1, ERBB2 (HER2), ESR1, PIK3CA |   |
| Endometrial Find It panel             | CTNNB1, PIK3CA, POLE, TP53       |   |
| GIST Find It panel                    | BRAF, KIT, PDGFRA                |   |

| Selected FISH probes                 |   |   |
|--------------------------------------|---|---|
| Name                                 | Relevant tumour type  | Additional supporting tests   |
| ALK FISH <sup>†</sup>                | Lung cancer   | ALK IHC; PD-L1 IHC  |
| CIC/DUX4 FISH <sup>†</sup>           | Ewing-like sarcoma  | DUX4 IHC  |
| EGFR FISH                            | Relevant for a number of tumour types, but primarily useful in gliomas  |   |
| FOXO1 FISH <sup>†</sup> (a.k.a FKHR) | Alveolar rhabdomyosarcoma (RMS)   |   |
| FUS/DDIT3 FISH <sup>†</sup>          | Myxoid liposarcomas   |   |
| MDM2 FISH <sup>†</sup>               | Soft tissue tumours, osteosarcomas, oesophageal carcinomas              | Also useful to distinguish between lipomas/lipomatous tumour/well-differentiated liposarcomas; malignant undifferentiated tumours/dedifferentiated liposarcomas; variety of benign tumours and liposarcomas |
| MYCN FISH                            | Neuroblastomas  |   |
| PTEN FISH                            | Glioblastomas   |   |
| ROS1 FISH <sup>†</sup>               | NSCLC   | ROS1 IHC; PD-L1 IHC   |
| SS18 FISH <sup>†</sup>               | Synovial sarcoma  |   |
| EWS FISH <sup>†</sup>                | Ewing sarcoma   |   |
| USP6 FISH <sup>†</sup>               | Primary aneurysmal bone cyst, nodular fasciitis, or myositis ossificans |   |
| 1p/19q co-deletion FISH <sup>†</sup> | Oligodendrogliomas and oligoastrocytomas                                | IDH1 R132H IHC; Glioma focused NGS panel  |

\*Correct at time of printing.

<sup>†</sup>Partial rebate may be available, subject to Medicare criteria being met.

<sup>‡</sup>Medicare rebates available, subject to Medicare criteria being met.

<sup>§</sup>Germline testing for hereditary cancer syndromes also available.

Sonic Genetics is offering FoundationOne on behalf of Roche Products Pty Limited, ABN 70 000 132 865, Level 8, 30-34 Hickson Road, Sydney NSW 2000.