INFORMATION FOR MEDICAL PROFESSIONALS ONLY

OncoStrands™

Essential Panel (Tissue Biopsy)

OncoStrands™ Essential Panel (Tissue) utilizes next generation sequencing (NGS) to identify somatic mutations within 50 targeted genes associated with different tumour types. This multi-biomarker panel enables detection of some of the most common actionable targets seen in many cancer types including those in lung, colon, skin, urinary bladder, stomach, thyroid and others.

The assay simultaneously screens for different types of mutations including single nucleotide variations (SNVs), copy number variations (CNVs) and fusions in multiple genes, while utilizing an extremely small amount of formalin-fixed, paraffin embedded (FFPE) tissue or cytology tumour material (cell block or smears with an adequate number of tumour cells).

This enables oncologists to select the most appropriate therapeutic approach, anticipate prognosis of the disease course, and fully personalize the disease management for each patient.

50 Gene Targets
SNVs, CNVs, fusions

Minimum 10% Tumour Content Required

High Accuracy at ≥5% Limit of Detection

5 Days Turnaround Time*

Bespoke Consultation with Molecular Pathologists

*Comprehensive report available 5 working days from laboratory sample receipt and subject to sample acceptance criteria

DNA Hotspots (45)

AKT1, AKT2, AKT3, ALK, AR, ARAF, BRAF, CDK4, CDKN2A, CHEK2, CTNNB1, EGFR, ERBB2, ERBB3, ERBB4, ESR1, FGFR1, FGFR2, FGFR3, FGFR4, FLT3, GNA11, GNAQ, GNAS, HRAS, IDH1, IDH2, KIT, KRAS, MAP2K1, MAP2K2, MET, MTOR, NRAS, NTRK1, NTRK2, NTRK3, PDGFRA, PIK3CA, PTEN, RAF1, RET, ROS1, SMO, TP53

CNVs (14)

ALK, AR, CD274, CDKN2A, EGFR, ERBB2, ERBB3, FGFR1, FGFR2, FGFR3, KRAS, MET, PIK3CA, PTEN

Fusions (18)

ALK, AR, BRAF, EGFR, ESR1, FGFR1, FGFR2, FGFR3, MET, NRG1, NTRK1, NTRK2, NTRK3, NUTM1, RET, ROS1, RSPO2, RSPO3

Test Specifications & Validation Characteristics

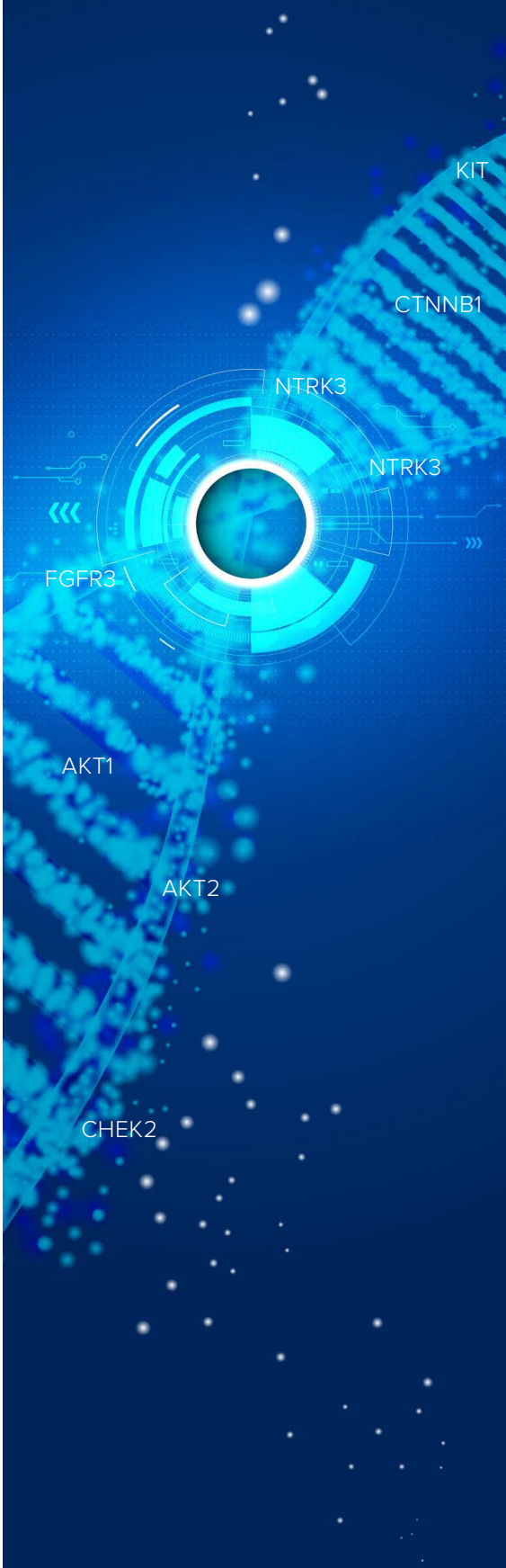
Based on in-house validation of clinical samples and reference standards

Methodology	Next generation sequencing
Aberrations Covered	SNV, CNV, Fusion
Specimen Requirements	• FFPE tissue block or 8 unstained sections (each 5µm thick). Minimum tumour content of 10%. • Copy of histology report.

Mutation Type	Accuracy	Sensitivity	Specificity	Limit of Detection
SNVs/short deletions	100%	100%	100%	≥5%
CNVs*	100%	97.8%	100%	N/A
Fusions**	100%	98.6%	100%	N/A

*CNVs on NGS platforms is an estimate based on prediction algorithm which considers multiple factors. The gene amplification of ≥5 is considered a true prediction on this platform.

**High confidence fusion calls considered true positive calls are based on ≥10 copies.



LifeStrands
Empowering Lives with Genomics

Key Therapeutic, Diagnostic and Prognostic Biomarkers (DNA & RNA Variants) Screened for Multiple Cancer Types

Lung

SNVs/del
ALK
BRAF
EGFR
ERBB2
KRAS
MET
PIK3CA

CNVs
ERBB2
MET

Fusions
ALK
MET
NTRK1
NTRK2
NTRK3
RET
ROS1

Other genes of interest
AKT1
CDK4
FGFR1
FGFR3
MAP2K1
NRAS
TP53

Colon

SNVs
BRAF
HRAS
KRAS
NRAS
PIK3CA

CNVs
ERBB2
MET

Fusions
FGFR1
NTRK1
NTRK2
NTRK3

Other genes of interest
AKT1
CTNNB1
ESR1

Melanoma

SNVs
BRAF
KIT
NRAS

Other genes of interest
CDK4
CDKN2A
CTNNB1
GNA11
GNAQ
IDH1
KRAS
MAP2K1
PDGFRA
PIK3CA
TP53

Stomach /GIST

SNVs/del
BRAF
KIT
KRAS
NRAS
PDGFRA
PIK3CA

CNVs
AR
EGFR
ERBB2
MET

Fusions
FGFR1
FGFR2
NTRK1
NTRK2
NTRK3

Other genes of interest
AKT1
CDK4

Thyroid

SNVs
BRAF
CTNNB1
HRAS
KRAS
NRAS

Fusions
NTRK1
NTRK2
NTRK3
RET

Head & Neck

SNVs
HRAS
KRAS
NRAS
PIK3CA

CNVs
EGFR
ERBB2
MET

Fusions
FGFR1
FGFR3
NTRK1
NTRK2
NTRK3

Brain

SNVs
BRAF
CDKN2A
IDH1
IDH2

CNVs
EGFR
MET

Fusions
BRAF
NTRK1
NTRK2
NTRK3

Other genes of interest
CDK4
KIT
PDGFRA
TP53

Reports Include

- Contents as per the latest AMP and CAP guidelines
- Recommended clinical matching with biomarkers, and clinical trials as per FDA, EMA, NCCN, ESMO, etc.

Services Include

- Quality control for tissue adequacy performed by staff pathologist
- Tests are run in house by qualified scientific and clinical staff under an accredited environment
- Complimentary consultation on various aspects of testing (e.g., appropriate test options based on tumour type, tissue availability etc) provided by qualified staff molecular pathologist

Additional Services

- IHC- MMR, PDL-1, *ALK*, *ROS1*
- Range of Oncostrands™ (oncosomatic) and hereditary panels

About Us

At LifeStrands Genomics laboratories we believe that everyone should have access to better healthcare through the advancement of clinical genomics. Within our accredited laboratories, our dedicated team of medical professionals and scientists work together to deliver high-quality and reliable genomic solutions to clinicians, patients & researchers.

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