OncoStrands®

ESSENTIAL | EXTENDED | COMPREHENSIVE

Key Biomarkers per Cancer Type
(All covered through various OncoStrands© panels)
associated with FDA-approved targeted therapy[1]

OncoStrands© is Technology-Agnostic:
- Ultilising various NGS technologies (Illumina, Thermo Fisher, Covaris, Twist Biosciences, IDT, etc.).
- Available to choose from both off-the-shelf and/or in-house developed & extensively validated panels including our trademarked OncoStrands© Essential, Extended & Comprehensive assays, ranging from 50 to over 520 genes[2].

Extensive & Unique Combination of Tumour Profiling Tests, screening for:
- DNA & RNA alterations; variants (SNVs, Indels, CNVs), fusion genes and splice sites.
- Genomics signatures including Tumour Mutational Burden (TMB), Microsatellite Instability (MSI) and Homologous Recombination Deficiency (HRD) phenotypes.

Report Includes:
- Contents as per the latest AMP & CAP guidelines
- Recommended clinical matching[1] with biomarkers, & clinical trials as per FDA, EMA, NCCN, ESMO, etc.

All Solid Tumours (pan-cancer biomarkers)

Tumour mutational burden (TMB)
Microsatellite instability (MSI)
Pembrolizumab

NTRK fusions (NTRK1, NTRK2, NTRK3)
Entrectinib & Larotrectinib

Lung, Non-Small Cell Lung Cancer (NSCLC)

AKT1, ALK, BRAF, DDR2, EGFR, ERBB2, FGFR1, FGFR3, KRAS, MAP2K1, MET, NRAS, PIK3CA, PTEN, ROS1, RET, STK11, TP53

ALK, RET, ROS1 rearrangements
Crizotinib, Alectinib, Brigatinib, Lorlatinib, Ceritinib, Pralsetinib, Selpercatinib & Entrectinib

BRAF V600E
Dabrafenib + Trametinib

EGFR (exons 19, 20 & 21 alterations/mutations)
Erlotinib, Gefitinib, Afatinib, Amivantamab, Dacominitib & Osimertinib, Erlotinib + Ramucirumab

MET exon 14 skipping
Capmatinib, Tepotinib

KRAS G12C
Sotorasib

Melanoma

BRAF, CTNNB1, GNA11, GNAQ, KIT, MAP2K1, NF1, NRAS, PDGFRA, PIK3CA, PTEN, TP53

BRAF V600E
Dabrafenib, Vemurafenib

BRAF V600K
Dabrafenib + Trametinib, Encorafenib + Binimetinib, Vemurafenib + Cobimetinib, Trametinib

Colon, Colorectal Cancer

AKT1, BRAF, HRAS, KRAS, MET, MLH1, MSH2, MSH6, NRAS, PIK3CA, PMS2, PTEN, SMAD4, TP53

BRAF V600E
Encorafenib + Cetuximab

KRAS and/or NRAS exon 2,3, 4 mutations
Cetuximab & Panitumumab

MSI-H
Ipilimumab + Nivolumab, Nivolumab

Gastric, Gastrointestinal Stromal Tumour (GIST)

BRAF, KIT, KRAS, MET, MLH1, PDGFRA, TP53

PDGFRA exon 18 mutations
Avapritinib

KIT exon 9, 11, 13, 14, 17 mutations
Imatinib, Sunitinib, Regorafenib, Ripretinib

Prostate Cancer

AR, ATM, BRAF, CD274, FGFR2, MLH1, MSH2, PMS2, PTEN

AR alterations/mutations
Abiraterone, Apalutamide, Bicalutamide, Enzalutamide & Darolutamide

BRCA1, BRCA2
Olaparib, Rucaparib

Other HRR mutations (ATM, BARD1, BRIP1, CDK12, CHEK1/2, FANCA, FANCL, PALB2, RAD51B/C/D, RAD54L, etc.)
Olaparib

Thyroid Cancer

ALK, BRAF, HRAS, KRAS, NRAS, RET, TERT, CDKN2A

Breast Cancer

AKT1, AR, BRCA1, BRCA2, ERBB2, FGFR1, FGFR2, PALB2, PIK3CA, PTEN

BRCA1, BRCA2
Olaparib & Talazoparib

ESR1 (for HR+ and/or HER2+)
Exemestane, Letrozole, Anastrozole, Tamoxifen, Fulvestrant

ERBB2 amplification
Ado-trastuzumab Emtansine, Capecitabine + Trastuzumab + Tucatinib, Neratinib, Pertuzumab + Trastuzumab, Trastuzumab-Deruxtecan, Trastuzumab

PIK3CA
Fulvestrant + Alpelisib

PTEN (for HER2-)
Everolimus

Pancreatic Cancer

AKT1, ATM, BRAF, BRCA1, BRCA2, KRAS, PALB2, PTEN, SMAD4

BRCA1, BRCA2
Olaparib

Bladder Cancer

FGFR1, FGFR2, FGFR3, MSH5, PMS2, TSC1

FGFR fusions
Erdafinib

Sarcoma

ALK, APC, BRAF, CDK4, CTNNB1, ETV6, EWSR1, FOX01, GLI1, KJT, MDM2, MYOD1, NAB2, NF1, PAX3, PAX7, PDGFRA, PDGFRB, SDHB, SDHC, SMARCB1, TFE3, WT1

Ovarian, Fallopian Tube, Peritoneal Cancer

BRAF, BRCA1, BRCA2, KRAS, PDGFRA, FOXL2, TP53, HRD

BRCA1, BRCA2
Olaparib, Niraparib, Rucaparib, Bevacizumab + Olaparib

HRD+
Bevacizumab + Olaparib

Brain Cancer

BRAF, CDKN2A, CDKN2B, EGFR, IDH1, IDH2, TERT

Supplementary Tests to assist better treatment decisions

Immunohistochemistry (IHC):
For the selection of immunotherapies
- PD-L1
- MMR

For TKI inhibitor treatments
- ALK
- ROS1

Promoter methylation (PCR-based):
- MLH1
- MGMT

[1]FDA-approved targeted therapy listed are not exhaustive. Recommended therapy details are part of the report contents for each patient.

[2]Listed biomarkers are available across all OncoStrands© assays. Full list of genes available upon request.

LifeStrands
Empowering lives with Genomics

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