

Micro-Onco Somatic Cancer Panels



	NUMBER OF GENES	STUDY MATERIAL	LIST OF TARGET GENES
Micro-CTC Somatic Panel	12 genes	FFPE and Liquid Biopsy	KRAS, NRAS, KIT, BRAF, PDGFRA, ALK, EGFR, ERBB2, PIK3CA, ERBB3, ESR1, RAF1
Micro-Act Somatic Panel	30 genes	FFPE	AKT1, ALK1, BRAF, CTNNB1, DDR2, EGFR, ERBB2, ERBB3, ERBB4, ESR1, FBXW7, FGFR1, FGFR2, FGFR3, FLT3, GNA11, GNAQ, HRAS, KIT, KRAS, MAP2K1, MAP2K2, MET, NOTCH1, NRAS, PDGFRA, PIK3CA, RAF1, SMAD4, STK11
Micro-Act Lung Panel	19 genes	FFPE and Liquid Biopsy	AKT1, ALK, BRAF, DDR2, EGFR, ERBB2/HER2, ESR1, FGFR1, KIT, KRAS, MAP2K1, MET, NRAS, NTRK1, PDGFRA, PIK3CA, PTEN, RICTOR, ROS1
Micro-Act Myeloid Panel	25 genes	Blood and Bone Marrow	ASXL1, CALR, CBL, CEBP α , CSF3R, DNMT3A, EZH2, FLT3, IDH1, IDH2, JAK2, KIT, KRAS, MPL, NPM1, NRAS, RUNX1, SETBP1, SF3B1, SH2B3, SRSF2, TET2, TP53, U2AF1, ZRSR2
Micro-Act Hot Spot Somatic Panel	4 genes	FFPE	BRAF, EGFR, KRAS, NRAS
Micro-Prostate Somatic Panel	14 genes	FFPE	APC, ATM, BRCA1, BRCA2, CHEK2, EPCAM, HOXB13, MLH1, MSH2, MSH6, MUTYH, PALB2, PMS2, TP53
Micro-Breast Over Somatic Panel	12 genes	FFPE	ATM, BRCA1, BRCA2, CHEK2, EPCAM, MLH1, MSH2, MSH6, MUTYH, PALB2, PMS2, TP53
Micro-BRCA 1/2 Panel	2 genes	FFPE	BRCA1, BRCA2
Micro-HRR Panel	15 genes	FFPE, EDTA Blood	ATM, BARD1, BRCA1, BRCA2, BRIP1, CDK12, CHEK1, CHEK2, FANCL, PALB2, PPP2R2A, RAD51B, RAD51C, RAD51D, RAD54L
Micro-FUSION NTRK Test	30 gene fusion	FFPE	NTRK1, NTRK2, NTRK3
Micro-EXP PDL1 Test	1 gen	FFPE	PDL-1
Micro-MSI Test	7 marker	FFPE and Bone Marrow	MSI

Micro-Onco Somatic Cancer Panels



With hereditary cancer panels both point mutations and small deletions/insertions, as well as copy number changes (CNV) in target genes are detected. Due to the UMI technology used in these tests, somatic variants in the low allele fraction can be screened effectively.

What is UMI Technology?

They are barcodes used to identify unique DNA-RNA molecules. These barcodes are linked before performing any amplification process (PCR) for rich amplification and unique analysis of target regions. Owing to UMI technology, PCR-derived false positives can be distinguished from true variants.

Cancer Type Specific Somatic Variant Analysis :

Micro-Onco panels are analyzed with the QIAGEN Clinical Insight (QCI) variant analysis program and variants that guide treatment are reported according to international criteria.

All variants detected in the analysis are classified according to the following criteria. Tumor-specific actionable (Tier 1 and 2) and clinically relevant variants are reported.

Tier 1 - Variants with strong clinical significance

Finding strong studies in international guidelines that are FDA approved or consensus of experts in the field.

Tier 2 - Variants with potential clinical significance

Lots of small-scale studies in consensus, strong clinical relevance/ actionability proven in different tumor types or few case reports with only preclinical studies where consensus could not be reached.

Somatic variants, specific to the primary tumor site or histology, can be classified according to the answers given to personalized medical practice. Actionable variants in personalized cancer medicine are genetic variants found in some tumors and are targets of new treatments. The variants detected are classified according to current treatment options, prognosis and/or diagnosis by considering the recommendations of the Molecular Pathology Guidelines (AMP/ASCO/CAP).