



OncoSELECT is a fast, minimally invasive analysis of circulating tumor DNA from a blood sample for lung (NSCLC), colon, breast (ER+ or HER2+) cancer patients.

OncoSELECT is the perfect diagnostic tool when a targeted therapy is planned or being used.

## WHEN & WHY PERFORM ONCOSELECT ?

### • for a COLORECTAL cancer patient :

1. The patient has been diagnosed wild type for KRAS / NRAS / BRAF and is receiving anti-EGFR therapy and (s)he is resisting therapy → Then apply OncoSELECT after a line of treatment, so the oncologist would be able to know if the patient acquired a mutation leading to this resistance.
2. The patient is either KRAS / NRAS / BRAF mutated and is receiving chemotherapy in neoadjuvant settings (before the surgery) → Then apply OncoSELECT in first line before surgery, so the oncologist will be able to know if the patient is answering the treatment.
3. The patient is metastatic and wild type for KRAS / NRAS / BRAF based on the solid biopsy available → Then apply OncoSELECT before the first line treatment, so the oncologists will be able to check the heterogeneity of the disease before starting the treatment.

### • for a LUNG cancer patient :

1. The patient has not been treated yet. Then apply OncoSELECT before the first line treatment, so the oncologists will be able to check the heterogeneity of the disease before starting the treatment.
2. The patient is treated by targeted therapy since an activating mutation (EGFR) or translocation (ALK/ROS1) has been reported → Then apply OncoSELECT after a line of treatment, so the oncologist would be able to know if the patient acquired a mutation leading to this resistance.
3. When the patient is metastatic and wild type for EGFR / ALK / ROS1 based on the solid biopsy before 1st line → Then apply OncoSELECT before the first line treatment, so the oncologists will be able to check the heterogeneity of the disease before starting the treatment.

### • for a BREAST cancer patient :

1. The patient is treated by either hormone therapy and/or anti-HER2. The patient is relapsing → Then apply OncoSELECT after a line of treatment, so the oncologist would be able to know if the patient acquired a mutation leading to this resistance.

## MATERIAL

1 blood sample (2 Streck tubes of 10 ml each)



## CANCER-SPECIFIC LIQUID BIOPSY

LIQUID BIOPSY

Next-generation sequencing



- Analysis of more than **100** mutations of resistance and sensitivity to targeted therapies (SNV, Indel, translocation and CNV)
- **Specific genes selected for each cancer type**

## INTEGRATED THERANOSTIC REPORT

Reporting of new variant(s) associated with resistance and/or new treatment options



## GENES PANELS

• for **BREAST cancer (Non Triple Negative)** :



### DNA

GENE	CODONS / EXONS
<b>ERBB2</b>	Codon : 309
<b>AKT1</b>	Codon : 17
<b>PIK3CA</b>	Codons : 542/545/1047 Exons : 2/5/6/8/10/21
<b>mTOR</b>	Exons : 19/30/39/40/43/44/45/47/48/53/56

GENE	CODONS / EXONS
<b>PTEN</b>	Exons : 1/2/3/4/5/6/7/8/9
<b>ESR1</b>	Exons : 5/6/7/8
<b>FGFR1</b>	NA - CNV only

• for **COLORECTAL cancer** :



### DNA

GENE	CODONS / EXONS
<b>NRAS</b>	Codons : 12/13/59/61/117/146
<b>KRAS</b>	Codons : 12/13/59/61/117/146
<b>AKT1</b>	Codon : 17
<b>MAP2K1</b>	Codons : 56/57/67
<b>CTNNB1</b>	Codons : 41/45
<b>PIK3CA</b>	Codons : 542/545/546/1047

GENE	CODONS / EXONS
<b>EGFR</b>	Codons : 451/467/464/465/491/468/492
<b>BRAF</b>	Codons : 466/469/472/594/597/600
<b>SMAD4</b>	Exons : 3/4/5/6/8/9/10/11/12
<b>FBXW7</b>	Exons : 5/8/9/10/11
<b>ERBB2</b>	NA - CNV only
<b>MET</b>	NA - CNV only

• for **NSCLC cancer** :



### DNA

GENE	CODONS / EXONS
<b>NRAS</b>	Codons : 12/13/59/61/117/146
<b>KRAS</b>	Codons : 12/13/59/61/117/146
<b>DDR2</b>	Codon : S768R
<b>AKT1</b>	Codon : 17
<b>MAP2K1</b>	Codons : 56/57/67
<b>BRAF</b>	Codons : 466/469/472/594/597/600

GENE	CODONS / EXONS
<b>ROS1</b>	Codons : L2155S/L2026M/G2032R/D2033N/L1951R
<b>MET</b>	Codon : Y1230C
<b>ALK</b>	Exons : 21/22/23/24/25
<b>EGFR</b>	Exons : 18/19/20/21
<b>ERBB2</b>	Exon : 20
<b>FGFR1</b>	NA - CNV only



### RNA (in exosomes)

GENE	FUSIONS OR UNUSUAL TRANSCRIPT
<b>ALK</b>	EML4/ALK, KIF5B/ALK, ...
<b>ROS1</b>	CD74/ROS1, SLC34A2/ROS1, ...
<b>RET</b>	CCDC6/RET, KIF5B/RET, ...
<b>NTRK1/2/3</b>	SQSTM1/NTRK1, ETV6/NTRK3, ...
<b>MET</b>	MET-ex14

