



NeoThetis Colorectal

of the NeoSENTIA liquid biopsy portfolio

Colorectal cancer is the 3rd most frequently diagnosed type of cancer in women and men worldwide, and the 2nd most common cause of cancer deaths in women and men combined.

Microsatellite instability (MSI) occurs in up to 20% of colorectal cancers. MSI testing is **recommended by international medical societies for accurate prognosis and treatment decisions**. In cases with high MSI, **immunotherapy** can be especially effective, with several FDA-approved immunotherapy options for colorectal cancer.

Source: World Health Organization, Global Cancer Observatory

"MSI testing is recommended for all patients with a personal history of colon or rectal cancer"

NCCN 2021 guidelines

"For stage 2 patients with colorectal cancer, molecular testing for MSI is suggested for treatment decisions"

ESMO 2020 guidelines

WHAT IS **NeoThetis** COLORECTAL THERAPY SELECTION?

NeoThetis colorectal therapy selection can detect genetic mutations that drive cancer or are associated with sensitivity or resistance to treatments. As a non-invasive, **precision medicine testing approach**, NeoThetis can provide you with invaluable, in-depth genetic insight about your patient's tumor that will help you to enhance clinical management and treatment.

WHAT DOES **NeoThetis** COLORECTAL THERAPY SELECTION DETECT?

The variants tested in NeoThetis colorectal therapy selection were selected after thorough research, taking into consideration international clinical practice guidelines for cancer treatment.

NeoThetis colorectal therapy selection screens for variants that:

- ◆ Have **high clinical significance** (Tier 1 and Tier 2 variants according to AMP/ASCO/CAP guidelines)
- ◆ Are associated with **targeted therapies, including immunotherapy drugs**, approved for use by the **FDA** or **EMA**
- ◆ Are included in clinical practice guidelines as set out by **NCCN, ESMO** and **ASCO**
- ◆ Are part of inclusion or exclusion criteria for **clinical trials**
- ◆ Can be indicators for **therapy resistance**

MSI ASSESSMENT

Via NGS, which detects a high number of clinically significant loci

NOVEL BIOINFORMATICS

Providing high classification accuracy

SUPERIOR VARIANT DETECTION

Even at low frequencies, raising sensitivity and specificity

TARGETED TECHNOLOGY

Target capture enrichment technology

NeoThetis COLORECTAL THERAPY SELECTION

NeoThetis colorectal therapy selection screens for single nucleotide variants (SNVs) and small insertions and deletions (INDELS) even at low levels of detection, as well as copy number alterations (CNAs) and rearrangements in a total of **34 genes**. The test also includes Microsatellite Instability (MSI) assessment

GENE	SNV/INDELS	CNAs	REARRANGEMENTS
AKT1	◆		
APC	◆		
ATM	◆		
BRAF	◆		
BRCA1	◆		
BRCA2	◆		
CTNNB1	◆		
EGFR	◆	◆	
ERBB2	◆	◆	
FBXW7	◆		
FGFR1		◆	
FGFR2		◆	
FGFR3		◆	
GNAS	◆		
KRAS	◆	◆	
MET		◆	
MLH1	◆		
MSH2	◆		
MSH6	◆		
MTOR	◆		
NRAS	◆		
NTRK1	◆		◆
NTRK2			◆
NTRK3			◆
PALB2	◆		
PDGFRA	◆		
PIK3CA	◆		
PIK3CB	◆		
PMS2	◆		
POLE	◆		
PTEN	◆		
RAF1	◆		
SMAD4	◆		
TP53	◆		

FDA or EMA approved targeted therapies for colorectal cancer, based on NCCN/ESMO guidelines*

Additional, NCCN/ESMO guideline-recommended targeted therapies and approved targeted therapies are available for other indications.

KRAS and NRAS wildtype	<i>Panitumumab</i>
KRAS wildtype	<i>Cetuximab</i>
BRAF	<i>Encorafenib</i>
NTRK1/2/3 fusions	<i>Larotrectinib, Entrectinib</i>
MSI	<i>Pembrolizumab, Nivolumab, Ipilimumab</i>

*As of June 2021