

NeoThetis GENES AND GENETIC ALTERATIONS TESTED PER PANEL

GENES TESTED

The following table indicates the genes tested per panel.

NeoThetis PAN-CANCER 80 genes	AKT1, ALK, APC, AR, ARAF, ATM, ATRX, BARD1, BRAF, BRCA1, BRCA2, BRIP1, CDH1, CDKN2A, CHEK2, CIC, CTNNB1, DDR2, DICER1, EGFR, ERBB2, ERBB3, ERBB4, ESR1, FBXW7, FGFR1, FGFR2, FGFR3, FLT3, FOXA1, FOXL2, FUBP1, GATA3, GNA11, GNAQ, GNAS, H3F3A, IDH1, IDH2, JAK2, KEAP1, KIT, KRAS, MAP2K1, MAP3K1, MET, MLH1, MRE11, MSH2, MSH6, MTOR, MYC, MYCN, NBN, NF1, NPM1, NRAS, NTRK1, NTRK2, NTRK3, PALB2, PDGFRA, PIK3CA, PIK3CB, PMS2, POLE, PTEN, RAD51C, RAD51D, RAF1, RB1, RET, ROS1, RUNX1, SMAD4, SPOP, STK11, TERT, Tmprss2, TP53
NeoThetis BREAST / GYNECOLOGICAL 48 genes	AKT1, ATM, BARD1, BRAF, BRCA1, BRCA2, BRIP1, CHEK2, CTNNB1, DICER1, EGFR, ERBB2, ERBB3, ESR1, FBXW7, FGFR1, FGFR2, FGFR3, FOXA1, FOXL2, GATA3, KIT, KRAS, MAP3K1, MET, MLH1, MRE11, MSH2, MSH6, MTOR, NBN, NRAS, NTRK1, NTRK2, NTRK3, PALB2, PIK3CA, PIK3CB, PMS2, POLE, PTEN, RAD51C, RAD51D, RAF1, RET, RUNX1, SMAD4, TP53
NeoThetis COLORECTAL 34 genes	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
NeoThetis GASTRIC 23 genes	APC, CDH1, EGFR, ERBB2, FGFR1, FGFR2, FGFR3, KIT, KRAS, MET, MLH1, MSH2, MSH6, NF1, NTRK1, NTRK2, NTRK3, PDGFRA, PIK3CA, PMS2, SMAD4, STK11, TP53
NeoThetis MELANOMA 28 genes	AKT1, ALK, BRAF, CTNNB1, ERBB2, FGFR1, FGFR2, FGFR3, GNA11, GNAQ, KIT, KRAS, MAP2K1, MET, MYC, NF1, NRAS, NTRK1, NTRK2, NTRK3, PDGFRA, PIK3CA, POLE, PTEN, RET, ROS1, STK11, TP53
NeoThetis NSCLC 36 genes	AKT1, ALK, APC, ARAF, ATM, BRAF, BRCA2, CTNNB1, DDR2, EGFR, ERBB2, ERBB3, ERBB4, FBXW7, FGFR1, FGFR2, FGFR3, JAK2, KEAP1, KRAS, MAP2K1, MET, NRAS, NTRK1, NTRK2, NTRK3, PDGFRA, PIK3CA, POLE, PTEN, RAF1, RET, ROS1, SMAD4, STK11, TP53
NeoThetis PANCREATIC 26 genes	ALK, ATM, BRAF, BRCA1, BRCA2, CDKN2A, CHEK2, ERBB2, FBXW7, FGFR1, FGFR2, FGFR3, KRAS, MLH1, MSH2, MSH6, MYC, NTRK1, NTRK2, NTRK3, PALB2, PMS2, ROS1, SMAD4, STK11, TP53
NeoThetis PROSTATE 35 genes	AKT1, APC, AR, ATM, BARD1, BRAF, BRCA1, BRCA2, CHEK2, CTNNB1, ERBB2, FGFR1, FGFR2, FGFR3, FOXA1, MLH1, MSH2, MSH6, MYC, MYCN, NRAS, NTRK1, NTRK2, NTRK3, PALB2, PIK3CA, PIK3CB, PMS2, POLE, PTEN, RAD51C, RAD51D, SPOP, Tmprss2, TP53

GENETIC ALTERATIONS TESTED IN PAN-CANCER PANEL

The following table shows the types of genetic alterations and coding exon coverage for each gene.

AKT1 Exon 4 (NM_001382430.1)	ALK Exons 18-23 (NM_004304.5)	APC Full coding exon coverage (NM_000038.6)	AR Exons 1-2, 4-8 (NM_000044.6)	ARAF Exon 7 (NM_001654.5)	ATM Full coding exon coverage (NM_000051.4)
▲	Selected non-coding regions covered ▲ ■	Selected non-coding regions covered ▲	Selected non-coding regions covered ▲ ●	▲	Selected non-coding regions covered ▲
ATRX Exons 5, 7, 9, 11, 13-14, 17, 20-22, 29-31, 35 (NM_000489.6)	BARD1 Full coding exon coverage (NM_000465.4)	BRAF Exons 9-13, 16 (NM_001374258.1) Exons 9-12, 15 (NM_004333.6)	BRCA1 Full coding exon coverage (NM_007294.4)	BRCA2 Full coding exon coverage (NM_000059.4)	BRIP1 Full coding exon coverage (NM_032043.3)
▲	Selected non-coding regions covered ▲	Selected non-coding regions covered ▲ ■	Selected non-coding regions covered ▲	Selected non-coding regions covered ▲	Selected non-coding regions covered ▲
CDH1 Full coding exon coverage (NM_004360.5)	CDKN2A Full coding exon coverage (NM_000077.5) (NM_058195.4)	CHEK2 Exons 2-10 (NM_007194.4)	CIC Exons 20-21 (NM_001386298.1)	CTNNB1 Exon 3 (NM_001904.4)	DDR2 Exon 17 (NM_006182.4)
Selected non-coding regions covered ▲	Selected non-coding regions covered ▲	Selected non-coding regions covered ▲	▲	▲	▲
DICER1 Exons 2-26 (NM_177438.3)	EGFR Exons 2-5, 8-10, 12, 14-15, 17-24, 27-28 (NM_005228.5)	ERBB2 Exons 3-4, 7-8, 10-11, 18-24 (NM_004448.4)	ERBB3 Exons 3, 6-11, 20-21 (NM_001982.4)	ERBB4 Exons 7, 15, 19, 23 (NM_005235.3)	ESR1 Exons 2-5, 7-8 (NM_000125.4)
Selected non-coding regions covered ▲	Selected non-coding regions covered ▲ ●	Selected non-coding regions covered ▲ ●	▲	▲	Selected non-coding regions covered ▲ ●

Selected non-coding regions which are covered by the test are indicated above.

NT_PNC_ET_6

FBXW7 Exons 6-7, 9-14 (NM_001349798.2)	FGFR1 Exon 5-9, 12-13, 16-17 (NM_023110.3)	FGFR2 Exons 2-9, 11, 13-17 (NM_000141.5)	FGFR3 Exons 4, 7-8, 11-12, 15-18 (NM_000142.5)	FLT3 Exon 20 (NM_004119.3)	FOXA1 Exon 2 (NM_004496.5)
▲	Selected non-coding regions covered ▲ ●	Selected non-coding regions covered ▲ ●	Selected non-coding regions covered ▲ ● ■	▲	▲
FOXL2 Full coding exon coverage (NM_023067.4)	FUBP1 Exon 14 (NM_003902.5)	GATA3 Exons 5-6 (NM_001002295.2)	GNA11 Exons 4-5 (NM_002067.5)	GNAQ Exons 5, 7 (NM_002072.5)	GNAS Exon 8-9 (NM_000516.7)
▲	▲	▲	▲	▲	▲
H3F3A Exon 2 (NM_002107.7)	IDH1 Exon 4 (NM_005896.4)	IDH2 Exon 4 (NM_002168.4)	JAK2 Exon 14 (NM_004972.4)	KEAP1 Exons 2-4 (NM_203500.2)	KIT Exons 2-15, 17-21 (NM_000222.3)
▲	▲	▲	▲	▲	Selected non-coding regions covered ▲ ●
KRAS Exons 2-4 (NM_004985.5)	MAP2K1 Exons 2-3, 6-7 (NM_000275.4)	MAP3K1 Exons 5-6, 16-18 (NM_005921.2)	MET Exons 3-21 (NM_000245.4)	MLH1 Full coding exon coverage (NM_000249.4)	MRE11 Exons 2-18, 20 (NM_005591.4)
Selected non-coding regions covered ▲ ●	▲	▲	Selected non-coding regions covered ▲ ●	Selected non-coding regions covered ▲	Selected non-coding regions covered ▲
MSH2 Full coding exon coverage (NM_000251.3)	MSH6 Full coding exon coverage (NM_000179.3)	MTOR Exons 43, 47, 53, 56 (NM_004958.4)	MYC Exons 1, 3 (NM_002467.6)	MYCN Exon 3 (NM_005378.6)	NBN Full coding exon coverage (NM_002485.5)
Selected non-coding regions covered ▲	Selected non-coding regions covered ▲	▲	Selected non-coding regions covered ●	Selected non-coding regions covered ●	Selected non-coding regions covered ▲
NF1 Exons 6, 12, 17-18, 21-22, 25, 27-28, 34, 37, 40, 44-47, 49, 53 (NM_001042492.3)	NPM1 Exon 11 (NM_0002520.7)	NRAS Exons 2-4 (NM_002524.5)	NTRK1 Exons 7-15 (NM_002529.4)	NTRK2 Exons 10-11, 13-14 (NM_006180.6)	NTRK3 Exons 14-15 (NM_001012338.3)
▲	▲	▲	Selected non-coding regions covered ▲ ●	Selected non-coding regions covered ■	Selected non-coding regions covered ■
PALB2 Full coding exon coverage (NM_024675.4)	PDGFRA Exon 18 (NM_006206.6)	PIK3CA Exons 2-6, 8, 10, 15-17, 19-21 (NM_006218.4)	PIK3CB Exons 13, 15, 24 (NM_006219.3)	PMS2 Exons 6-8, 10 (NM_000535.7)	POLE Exons 2-49 (NM_006231.4)
Selected non-coding regions covered ▲	▲	Selected non-coding regions covered ▲ ●	▲	Selected non-coding regions covered ▲	Selected non-coding regions covered ▲
PTEN Exons 1-8 (NM_000314.8)	RAD51C Full coding exon coverage (NM_058216.3)	RAD51D Full coding exon coverage (NM_002878.4)	RAF1 Exon 7 (NM_002880.4)	RB1 Exons 1-13, 16-27 (NM_000321.3)	RET Full coding exon coverage (NM_020975.6)
Selected non-coding regions covered ▲	Selected non-coding regions covered ▲	Selected non-coding regions covered ▲	▲	Selected non-coding regions covered ▲	Selected non-coding regions covered ▲ ■
ROS1 Exons 32-37 (NM_001378902.1)	RUNX1 Exon 5 (NM_001754.5)	SMAD4 Full coding exon coverage (NM_005359.6)	SPOP Exons 4-5 (NM_001007228.2)	STK11 Full coding exon coverage (NM_000455.5)	TERT Exon 1 (NM_198253.3)
Selected non-coding regions covered ■	▲	Selected non-coding regions covered ▲	▲	Selected non-coding regions covered ▲	Selected non-coding regions covered ▲
TMPRSS2 Exons 2-4 (NM_005656.4)	TP53 Full coding exon coverage (NM_000546.6)				
Selected non-coding regions covered ■	Selected non-coding regions covered ▲				

Selected non-coding regions which are covered by the test are indicated above.

▲ Single Nucleotide Variant / Indels

● Copy Number Alterations

■ Rearrangements

GENETIC ALTERATIONS TESTED IN BREAST / GYNECOLOGICAL PANEL

The following table shows the types of genetic alterations and coding exon coverage for each gene.

AKT1 Exon 4 (NM_001382430.1) 	ATM Full coding exon coverage (NM_000051.4) Selected non-coding regions covered 	BARD1 Full coding exon coverage (NM_000465.4) Selected non-coding regions covered 	BRAF Exons 9-13, 16 (NM_001374258.1) Exons 9-12, 15 (NM_004333.6) Selected non-coding regions covered 	BRCA1 Full coding exon coverage (NM_007294.4) Selected non-coding regions covered 	BRCA2 Full coding exon coverage (NM_000059.4) Selected non-coding regions covered 
BRIP1 Full coding exon coverage (NM_032043.3) Selected non-coding regions covered 	CHEK2 Exons 2-10 (NM_007194.4) Selected non-coding regions covered 	CTNNB1 Exon 3 (NM_001904.4) 	DICER1 Exons 2-26 (NM_177438.3) Selected non-coding regions covered 	EGFR Exons 2-5, 8-10, 12, 14-15, 17-24, 27-28 (NM_005228.5) Selected non-coding regions covered  	ERBB2 Exons 3-4, 7-8, 10-11, 18-24 (NM_004448.4) Selected non-coding regions covered  
ERBB3 Exons 3, 6-11, 20-21 (NM_001982.4) 	ESR1 Exons 2-5, 7-8 (NM_000125.4) Selected non-coding regions covered  	FBXW7 Exons 6-7, 9-14 (NM_001349798.2) 	FGFR1 Exon 5-9, 12-13, 16-17 (NM_023110.3) 	FGFR2 Exons 2-9, 11, 13-17 (NM_000141.5) 	FGFR3 Exons 4, 7-8, 11-12, 15-18 (NM_000142.5) 
FOXA1 Exon 2 (NM_004496.5) 	FOXL2 Full coding exon coverage (NM_023067.4) 	GATA3 Exons 5-6 (NM_001002295.2) 	KIT Exons 2-15, 17-21 (NM_000222.3) Selected non-coding regions covered 	KRAS Exons 2-4 (NM_004985.5) Selected non-coding regions covered  	MAP3K1 Exons 5-6, 16-18 (NM_005921.2) 
MET Exons 3-21 (NM_000245.4) Selected non-coding regions covered 	MLH1 Full coding exon coverage (NM_000249.4) Selected non-coding regions covered 	MRE11A Exons 2-18, 20 (NM_005591.4) Selected non-coding regions covered 	MSH2 Full coding exon coverage (NM_000251.3) Selected non-coding regions covered 	MSH6 Full coding exon coverage (NM_000179.3) Selected non-coding regions covered 	MTOR Exons 43, 47, 53, 56 (NM_004958.4) 
NBN Full coding exon coverage (NM_002485.5) Selected non-coding regions covered 	NRAS Exons 2-4 (NM_002524.5) 	NTRK1 Exons 7-15 (NM_002529.4) Selected non-coding regions covered 	NTRK2 Exons 10-11, 13-14 (NM_006180.6) Selected non-coding regions covered 	NTRK3 Exons 14-15 (NM_001012338.3) Selected non-coding regions covered 	PALB2 Full coding exon coverage (NM_024675.4) 
PIK3CA Exons 2-6, 8, 10, 15-17, 19-21 (NM_006218.4) Selected non-coding regions covered  	PIK3CB Exons 13, 15, 24 (NM_006219.3) 	PMS2 Exons 6-8, 10 (NM_000535.7) Selected non-coding regions covered 	POLE Exons 2-49 (NM_006231.4) Selected non-coding regions covered 	PTEN Exons 1-8 (NM_000314.8) 	RAD51C Full coding exon coverage (NM_058216.3) 
RAD51D Full coding exon coverage (NM_002878.4) Selected non-coding regions covered 	RAF1 Exon 7 (NM_002880.4) 	RET Full coding exon coverage (NM_020975.6) Selected non-coding regions covered 	RUNX1 Exon 5 (NM_001754.5) 	SMAD4 Full coding exon coverage (NM_005359.6) Selected non-coding regions covered 	TP53 Full coding exon coverage (NM_000546.6) 

Selected non-coding regions which are covered by the test are indicated above.

 Single Nucleotide Variant / Indels

 Copy Number Alterations

 Rearrangements

GENETIC ALTERATIONS TESTED IN COLORECTAL PANEL

The following table shows the types of genetic alterations and coding exon coverage for each gene.

AKT1 Exon 4 <small>(NM_001382430.1)</small> 	APC Full coding exon coverage <small>(NM_000038.6)</small> Selected non-coding regions covered 	ATM Full coding exon coverage <small>(NM_000051.4)</small> Selected non-coding regions covered 	BRAF Exons 9-13, 16 <small>(NM_001374258.1)</small> Exons 9-12, 15 <small>(NM_004333.6)</small> Selected non-coding regions covered 	BRCA1 Full coding exon coverage <small>(NM_007294.4)</small> Selected non-coding regions covered 	BRCA2 Full coding exon coverage <small>(NM_000059.4)</small> Selected non-coding regions covered 
CTNNB1 Exon 3 <small>(NM_001904.4)</small> 	EGFR Exons 2-5, 8-10, 12, 14-15, 17-24, 27-28 <small>(NM_005228.5)</small> Selected non-coding regions covered  	ERBB2 Exons 3-4, 7-8, 10-11, 18-24 <small>(NM_004448.4)</small> Selected non-coding regions covered  	FBXW7 Exons 6-7, 9-14 <small>(NM_001349798.2)</small> 	FGFR1 Exon 5-9, 12-13, 16-17 <small>(NM_023110.3)</small> Selected non-coding regions covered 	FGFR2 Exons 2-9, 11, 13-17 <small>(NM_001041.5)</small> 
FGFR3 Exons 4, 7-8, 11-12, 15-18 <small>(NM_000142.5)</small> Selected non-coding regions covered 	GNAS Exon 8-9 <small>(NM_000516.7)</small> 	KRAS Exons 2-4 <small>(NM_004985.5)</small> Selected non-coding regions covered  	MET Exons 3-21 <small>(NM_000245.4)</small> Selected non-coding regions covered 	MLH1 Full coding exon coverage <small>(NM_000249.4)</small> Selected non-coding regions covered 	MSH2 Full coding exon coverage <small>(NM_000251.3)</small> 
MSH6 Full coding exon coverage <small>(NM_000179.3)</small> Selected non-coding regions covered 	MTOR Exons 43, 47, 53, 56 <small>(NM_004958.4)</small> 	NRAS Exons 2-4 <small>(NM_002524.5)</small> 	NTRK1 Exons 7-15 <small>(NM_002529.4)</small>  	NTRK2 Exons 10-11, 13-14 <small>(NM_006180.6)</small> 	NTRK3 Exons 14-15 <small>(NM_001012338.3)</small> 
PALB2 Full coding exon coverage <small>(NM_024675.4)</small> Selected non-coding regions covered 	PDGFRA Exon 18 <small>(NM_006206.6)</small> 	PIK3CA Exons 2-6, 8, 10, 15-17, 19-21 <small>(NM_006218.4)</small> Selected non-coding regions covered 	PIK3CB Exons 13, 15, 24 <small>(NM_006219.3)</small> 	PMS2 Exons 6-8, 10 <small>(NM_000535.7)</small> Selected non-coding regions covered 	POLE Exons 2-49 <small>(NM_006231.4)</small> 
PTEN Exons 1-8 <small>(NM_000314.8)</small> Selected non-coding regions covered 	RAF1 Exon 7 <small>(NM_002880.4)</small> 	SMAD4 Full coding exon coverage <small>(NM_005359.6)</small> Selected non-coding regions covered 	TP53 Full coding exon coverage <small>(NM_000546.6)</small> Selected non-coding regions covered 		

Selected non-coding regions which are covered by the test are indicated above.

 Single Nucleotide Variant / Indels

 Copy Number Alterations

 Rearrangements

GENETIC ALTERATIONS TESTED IN GASTRIC PANEL

The following table shows the types of genetic alterations and coding exon coverage for each gene.

APC Full coding exon coverage (NM_000038.6) Selected non-coding regions covered 	CDH1 Full coding exon coverage (NM_004360.5) Selected non-coding regions covered 	EGFR Exons 2-5, 8-10, 12, 14-15, 17-24, 27-28 (NM_005228.5) Selected non-coding regions covered 	ERBB2 Exons 3-4, 7-8, 10-11, 18-24 (NM_004448.4) Selected non-coding regions covered  	FGFR1 Exon 5-9, 12-13, 16-17 (NM_023110.3) Selected non-coding regions covered 	FGFR2 Exons 2-9, 11, 13-17 (NM_000141.5) Selected non-coding regions covered 
FGFR3 Exons 4, 7-8, 11-12, 15-18 (NM_000142.5) Selected non-coding regions covered  	KIT Exons 2-15, 17-21 (NM_000222.3) Selected non-coding regions covered 	KRAS Exons 2-4 (NM_004985.5) Selected non-coding regions covered 	MET Exons 3-21 (NM_000245.4) Selected non-coding regions covered 	MLH1 Full coding exon coverage (NM_000249.4) Selected non-coding regions covered 	MSH2 Full coding exon coverage (NM_000251.3) Selected non-coding regions covered 
MSH6 Full coding exon coverage (NM_000179.3) Selected non-coding regions covered 	NF1 Exons 6, 12, 17-18, 21-22, 25, 27-28, 34, 37, 40, 44-47, 49, 53 (NM_001042492.3) Selected non-coding regions covered 	NTRK1 Exons 7-15 (NM_002529.4) Selected non-coding regions covered  	NTRK2 Exons 10-11, 13-14 (NM_006180.6) Selected non-coding regions covered 	NTRK3 Exons 14-15 (NM_001012338.3) Selected non-coding regions covered 	PDGFRA Exon 18 (NM_006206.6) Selected non-coding regions covered 
PIK3CA Exons 2-6, 8, 10, 15-17, 19-21 (NM_006218.4) Selected non-coding regions covered  	PMS2 Exons 6-8, 10 (NM_000535.7) Selected non-coding regions covered 	SMAD4 Full coding exon coverage (NM_005359.6) Selected non-coding regions covered 	STK11 Full coding exon coverage (NM_000455.5) Selected non-coding regions covered 	TP53 Full coding exon coverage (NM_000546.6) Selected non-coding regions covered 	

Selected non-coding regions which are covered by the test are indicated above.

 Single Nucleotide Variant / Indels
  Copy Number Alterations
  Rearrangements

GENETIC ALTERATIONS TESTED IN MELANOMA PANEL

The following table shows the types of genetic alterations and coding exon coverage for each gene.

AKT1 Exon 4 <small>(NM_001382430.1)</small> 	ALK Exons 18-23 <small>(NM_004304.5)</small> Selected non-coding regions covered 	BRAF Exons 9-13, 16 <small>(NM_001374258.1)</small> Exons 9-12, 15 <small>(NM_004333.6)</small> Selected non-coding regions covered  	CTNNB1 Exon 3 <small>(NM_001904.4)</small> 	ERBB2 Exons 3-4, 7-8, 10-11, 18-24 <small>(NM_004448.4)</small> Selected non-coding regions covered 	FGFR1 Exon 5-9, 12-13, 16-17 <small>(NM_023110.3)</small> Selected non-coding regions covered  
FGFR2 Exons 2-9, 11, 13-17 <small>(NM_000141.5)</small> Selected non-coding regions covered  	FGFR3 Exons 4, 7-8, 11-12, 15-18 <small>(NM_000142.5)</small> Selected non-coding regions covered  	GNA11 Exons 4-5 <small>(NM_002067.5)</small> 	GNAQ Exons 5, 7 <small>(NM_002072.5)</small> 	KIT Exons 2-15, 17-21 <small>(NM_000222.3)</small> Selected non-coding regions covered  	KRAS Exons 2-4 <small>(NM_004985.5)</small> Selected non-coding regions covered  
MAP2K1 Exons 2-3, 6-7 <small>(NM_002755.4)</small> 	MET Exons 3-21 <small>(NM_000245.4)</small> Selected non-coding regions covered 	MYC Exons 1, 3 <small>(NM_002467.6)</small> Selected non-coding regions covered 	NF1 Exons 6, 12, 17-18, 21-22, 25, 27-28, 34, 37, 40, 44-47, 49, 53 <small>(NM_001042492.3)</small> 	NRAS Exons 2-4 <small>(NM_002524.5)</small> 	NTRK1 Exons 7-15 <small>(NM_002529.4)</small> Selected non-coding regions covered 
NTRK2 Exons 10-11, 13-14 <small>(NM_006180.6)</small> Selected non-coding regions covered 	NTRK3 Exons 14-15 <small>(NM_001012338.3)</small> Selected non-coding regions covered 	PDGFRA Exon 18 <small>(NM_006206.6)</small> 	PIK3CA Exons 2-6, 8, 10, 15-17, 19-21 <small>(NM_006218.4)</small> Selected non-coding regions covered 	POLE Exons 2-49 <small>(NM_006231.4)</small> Selected non-coding regions covered 	PTEN Exons 1-8 <small>(NM_000314.8)</small> Selected non-coding regions covered 
RET Full coding exon coverage <small>(NM_020975.6)</small> Selected non-coding regions covered 	ROS1 Exons 32-37 <small>(NM_001378902.1)</small> Selected non-coding regions covered 	STK11 Full coding exon coverage <small>(NM_000455.5)</small> Selected non-coding regions covered 	TP53 Full coding exon coverage <small>(NM_000546.6)</small> Selected non-coding regions covered 		

Selected non-coding regions which are covered by the test are indicated above.

 Single Nucleotide Variant / Indels

 Copy Number Alterations

 Rearrangements

GENETIC ALTERATIONS TESTED IN NSCLC PANEL

The following table shows the types of genetic alterations and coding exon coverage for each gene.

AKT1 Exon 4 <small>(NM_001382430.1)</small> 	ALK Exons 18-23 <small>(NM_004304.5)</small> <i>Selected non-coding regions covered</i>  	APC Full coding exon coverage <small>(NM_000038.6)</small> <i>Selected non-coding regions covered</i> 	ARAF Exon 7 <small>(NM_001654.5)</small> 	ATM Full coding exon coverage <small>(NM_000051.4)</small> <i>Selected non-coding regions covered</i> 	BRAF Exons 9-13, 16 <small>(NM_001374258.1)</small> Exons 9-12, 15 <small>(NM_004333.6)</small> <i>Selected non-coding regions covered</i> 
BRCA2 Full coding exon coverage <small>(NM_000059.4)</small> <i>Selected non-coding regions covered</i> 	CTNNB1 Exon 3 <small>(NM_001904.4)</small> 	DDR2 Exon 17 <small>(NM_006182.4)</small> 	EGFR Exons 2-5, 8-10, 12, 14-15, 17-24, 27-28 <small>(NM_005228.5)</small> <i>Selected non-coding regions covered</i>  	ERBB2 Exons 3-4, 7-8, 10-11, 18-24 <small>(NM_004448.4)</small> <i>Selected non-coding regions covered</i>  	ERBB3 Exons 3, 6-11, 20-21 <small>(NM_001982.4)</small> 
ERBB4 Exons 7, 15, 19, 23 <small>(NM_005235.3)</small> 	FBXW7 Exons 6-7, 9-14 <small>(NM_001349798.2)</small> 	FGFR1 Exon 5-9, 12-13, 16-17 <small>(NM_023110.3)</small> <i>Selected non-coding regions covered</i> 	FGFR2 Exons 2-9, 11, 13-17 <small>(NM_000141.5)</small> <i>Selected non-coding regions covered</i> 	FGFR3 Exons 4, 7-8, 11-12, 15-18 <small>(NM_000142.5)</small> <i>Selected non-coding regions covered</i>  	JAK2 Exon 14 <small>(NM_004972.4)</small> 
KEAP1 Exons 2-4 <small>(NM_203500.2)</small> 	KRAS Exons 2-4 <small>(NM_004985.5)</small> <i>Selected non-coding regions covered</i> 	MAP2K1 Exons 2-3, 6-7 <small>(NM_002755.4)</small> 	MET Exons 3-21 <small>(NM_000245.4)</small> <i>Selected non-coding regions covered</i>  	NRAS Exons 2-4 <small>(NM_002524.5)</small> 	NTRK1 Exons 7-15 <small>(NM_002529.4)</small> <i>Selected non-coding regions covered</i> 
NTRK2 Exons 10-11, 13-14 <small>(NM_006180.6)</small> <i>Selected non-coding regions covered</i> 	NTRK3 Exons 14-15 <small>(NM_001012338.3)</small> <i>Selected non-coding regions covered</i> 	PDGFRA Exon 18 <small>(NM_006206.6)</small> 	PIK3CA Exons 2-6, 8, 10, 15-17, 19-21 <small>(NM_006218.4)</small> <i>Selected non-coding regions covered</i>  	POLE Exons 2-49 <small>(NM_006231.4)</small> <i>Selected non-coding regions covered</i> 	PTEN Exons 1-8 <small>(NM_000314.8)</small> <i>Selected non-coding regions covered</i> 
RAF1 Exon 7 <small>(NM_002880.4)</small> 	RET Full coding exon coverage <small>(NM_020975.6)</small> <i>Selected non-coding regions covered</i> 	ROS1 Exons 32-37 <small>(NM_001378902.1)</small> 	SMAD4 Full coding exon coverage <small>(NM_005359.6)</small> <i>Selected non-coding regions covered</i> 	STK11 Full coding exon coverage <small>(NM_000455.5)</small> <i>Selected non-coding regions covered</i> 	TP53 Full coding exon coverage <small>(NM_000546.6)</small> <i>Selected non-coding regions covered</i> 

Selected non-coding regions which are covered by the test are indicated above.

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GENETIC ALTERATIONS TESTED IN PANCREATIC PANEL

The following table shows the types of genetic alterations and coding exon coverage for each gene.

ATM Full coding exon coverage (NM_000051.4) Selected non-coding regions covered ▲	ALK Exons 18-23 (NM_004304.5) Selected non-coding regions covered ▲ ■	BRAF Exons 9-13, 16 (NM_001374258.1) Exons 9-12, 15 (NM_004333.6) Selected non-coding regions covered ▲	BRCA1 Full coding exon coverage (NM_007294.4) Selected non-coding regions covered ▲	BRCA2 Full coding exon coverage (NM_000059.4) Selected non-coding regions covered ▲	CDKN2A Full coding exon coverage (NM_000077.5) (NM_058195.4) Selected non-coding regions covered ▲
CHEK2 Exons 2-10 (NM_007194.4) Selected non-coding regions covered ▲	ERBB2 Exons 3-4, 7-8, 10-11, 18-24 (NM_004448.4) Selected non-coding regions covered ▲	FBXW7 Exons 6-7, 9-14 (NM_001349798.2) Selected non-coding regions covered ▲	FGFR1 Exon 5-9, 12-13, 16-17 (NM_023110.3) Selected non-coding regions covered ●	FGFR2 Exons 2-9, 11, 13-17 (NM_000141.5) Selected non-coding regions covered ●	FGFR3 Exons 4, 7-8, 11-12, 15-18 (NM_000142.5) Selected non-coding regions covered ●
KRAS Exons 2-4 (NM_004985.5) Selected non-coding regions covered ▲	MLH1 Full coding exon coverage (NM_000249.4) Selected non-coding regions covered ▲	MSH2 Full coding exon coverage (NM_000251.3) Selected non-coding regions covered ▲	MSH6 Full coding exon coverage (NM_000179.3) Selected non-coding regions covered ▲	MYC Exons 1, 3 (NM_002467.6) Selected non-coding regions covered ●	NTRK1 Exons 7-15 (NM_002529.4) Selected non-coding regions covered ▲ ■
NTRK2 Exons 10-11, 13-14 (NM_006180.6) Selected non-coding regions covered ■	NTRK3 Exons 14-15 (NM_001012338.3) Selected non-coding regions covered ■	PALB2 Full coding exon coverage (NM_024675.4) Selected non-coding regions covered ▲	PMS2 Exons 6-8, 10 (NM_000535.7) Selected non-coding regions covered ▲	ROS1 Exons 32-37 (NM_001378902.1) Selected non-coding regions covered ■	SMAD4 Full coding exon coverage (NM_005359.6) Selected non-coding regions covered ▲
STK11 Full coding exon coverage (NM_000455.5) Selected non-coding regions covered ▲	TP53 Full coding exon coverage (NM_000546.6) Selected non-coding regions covered ▲				

Selected non-coding regions which are covered by the test are indicated above.

▲ Single Nucleotide Variant / Indels ● Copy Number Alterations ■ Rearrangements

GENETIC ALTERATIONS TESTED IN PROSTATE PANEL

The following table shows the types of genetic alterations and coding exon coverage for each gene.

AKT1 Exon 4 (NM_001382430.1)	APC Full coding exon coverage (NM_000038.6)	AR Exons 1-2, 4-8 (NM_000044.6)	ATM Full coding exon coverage (NM_000051.4)	BARD1 Full coding exon coverage (NM_000465.4)	BRAF Exons 9-13, 16 (NM_001374258.1) Exons 9-12, 15 (NM_004333.6)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
▲	▲	▲ ●	▲	▲	▲
BRCA1 Full coding exon coverage (NM_007294.4)	BRCA2 Full coding exon coverage (NM_000059.4)	CHEK2 Exons 2-10 (NM_007194.4)	CTNNB1 Exon 3 (NM_001904.4)	ERBB2 Exons 3-4, 7-8, 10-11, 18-24 (NM_004448.4)	FGFR1 Exon 5-9, 12-13, 16-17 (NM_023110.3)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered		Selected non-coding regions covered	Selected non-coding regions covered
▲	▲	▲	▲	●	●
FGFR2 Exons 2-9, 11, 13-17 (NM_000141.5)	FGFR3 Exons 4, 7-8, 11-12, 15-18 (NM_000142.5)	FOXA1 Exon 2 (NM_004496.5)	MLH1 Full coding exon coverage (NM_000249.4)	MSH2 Full coding exon coverage (NM_000251.3)	MSH6 Full coding exon coverage (NM_000179.3)
Selected non-coding regions covered	Selected non-coding regions covered		Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
●	●	▲	▲	▲	▲
MYC Exons 1, 3 (NM_002467.6)	MYCN Exon 3 (NM_005378.6)	NRAS Exons 2-4 (NM_002524.3)	NTRK1 Exons 7-15 (NM_002529.4)	NTRK2 Exons 10-11, 13-14 (NM_006180.6)	NTRK3 Exons 14-15 (NM_001012338.3)
Selected non-coding regions covered	Selected non-coding regions covered		Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
●	●	▲	■	■	■
PALB2 Full coding exon coverage (NM_024675.4)	PIK3CA Exons 2-6, 8, 10, 15-17, 19-21 (NM_006218.4)	PIK3CB Exons 13, 15, 24 (NM_006219.3)	PMS2 Exons 6-8, 10 (NM_000535.7)	POLE Exons 2-49 (NM_006231.4)	PTEN Exons 1-8 (NM_000314.8)
Selected non-coding regions covered	Selected non-coding regions covered		Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
▲	▲ ●	▲	▲	▲	▲
RAD51C Full coding exon coverage (NM_058216.3)	RAD51D Full coding exon coverage (NM_002878.4)	SPOP Exons 4-5 (NM_001007228.2)	TMPRSS2 Exons 2-4 (NM_005656.4)	TP53 Full coding exon coverage (NM_000546.6)	
Selected non-coding regions covered	Selected non-coding regions covered		Selected non-coding regions covered	Selected non-coding regions covered	
▲	▲	▲	■	▲	

Selected non-coding regions which are covered by the test are indicated above.

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