

Broad versus limited gene panels to guide treatment in patients with advanced solid tumors: a randomized controlled trial

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Supplementary material S1. Changes over time of the ProfiLER-02 CTL gene panel

A) From Sept 2017 to Oct 2018, CTL panel v1 (total size 12.5 Mb)

The CTL panel v1 was designed to detect base substitutions/insertions/deletions in the entire coding sequence including the 74 genes listed below (size 472 kb) and to detect copy number alterations in the genome-wide backbone (size 12 Mb).

Gene	Transcript	Gene	Transcript	Gene	Transcript	Gene	Transcript	Gene	Transcript
AKT1	NM_005163	EGFR	NM_005228	KIT	NM_000222	PIK3CA	NM_006218	SDHD	NM_003002
AKT2	NM_001626	ERBB2	NM_004448	KRAS	NM_004985	PIK3R1	NM_181523	SMARCA2	NM_003070
ALK	NM_004304	ERBB4	NM_005235	MAP2K1	NM_002755	PTCH1	NM_001083603	SMARCA4	NM_001128849
APC	NM_001127511	EZH2	NM_001203247	MDM2	NM_002392	PTEN	NM_000314	SMARCB1	NM_003073
ARID1A	NM_006015	FGFR1	NM_023106	MERTK	NM_006343	RAF1	NM_002880	SMO	NM_005631
ARID1B	NM_020732	FGFR2	NM_000141	MET	NM_001127500	RB1	NM_000321	SRC	NM_005417
AXL	NM_021913	FGFR3	NM_000142	MST1R	NM_001244937	RET	NM_020975	STK11	NM_000455
BRAF	NM_004333	FGFR4	NM_002011	MTOR	NM_004958	ROR1	NM_005012	TEK	NM_000459
BRCA1	NM_007294	FLT1	NM_002019	MUSK	NM_001166280	ROR2	NM_004560	TIE1	NM_005424
BRCA2	NM_000059	FLT3	NM_004119	NRAS	NM_002524	ROS1	NM_002944	TP53	NM_000546
CDKN2A	NM_000077	FLT4	NM_182925	PBRM1	NM_018313	RPTOR	NM_020761	TSC1	NM_001162427
CSF1R	NM_005211	HRAS	NM_005343	PDGFA	NM_033023	RYK	NM_002958	TSC2	NM_000548
DDB2	NM_000107	IGF1R	NM_000875	PDGFB	NM_002608	SDHAF2	NM_017841	TYRO3	NM_006293
DDR1	NM_001202523	JAK3	NM_000215	PDGFRA	NM_006206	SDHB	NM_003000	VHL	NM_000551
DDR2	NM_006182	KDR	NM_002253	PDGFRB	NM_002609	SDHC	NM_001035511		

B) From Oct 2018 to May 2020, CTL panel v2 (total size 12.5 Mb)

The CTL panel v2 was designed to detect base substitutions/ insertions/deletions in the entire coding sequence including the 87 genes listed below (size 480 kb) and to detect copy number alterations in genome-wide backbone (size 12 Mb).

Gene	Transcript	Gene	Transcript	Gene	Transcript	Gene	Transcript	Gene	Transcript	Gene	Transcript
AKT1	NM_005163	DDR1	NM_001202523	IDH2	NM_002168	MUSK	NM_001166280	RAD51C	NM_058216	SMARCA4	NM_001128849
AKT2	NM_001626	DDR2	NM_006182	IGF1R	NM_000875	NRAS	NM_002524	RAD51D	NM_001142571	SMARCB1	NM_003073
ALK	NM_004304	EGFR	NM_005228	JAK3	NM_000215	PALB2	NM_024675	RAF1	NM_002880	SMO	NM_005631
APC	NM_001127511	ERBB2	NM_004448	KDR	NM_002253	PBRM1	NM_018313	RB1	NM_000321	SRC	NM_005417
ARID1A	NM_006015	ERBB4	NM_005235	KIT	NM_000222	PDGFA	NM_033023	RET	NM_020975	STK11	NM_000455
ARID1B	NM_020732	EZH2	NM_001203247	KRAS	NM_004985	PDGFB	NM_002608	ROR1	NM_005012	TEK	NM_000459
ATM	NM_000051	FGFR1	NM_023106	MAP2K1	NM_002755	PDGFRA	NM_006206	ROR2	NM_004560	TIE1	NM_005424
ATR	NM_001184	FGFR2	NM_000141	MDM2	NM_002392	PDGFRB	NM_002609	ROS1	NM_002944	TP53	NM_000546
AXL	NM_021913	FGFR3	NM_000142	MERTK	NM_006343	PIK3CA	NM_006218	RPTOR	NM_020761	TSC1	NM_001162427
BRAF	NM_004333	FGFR4	NM_002011	MET	NM_001127500	PIK3R1	NM_181523	RYK	NM_002958	TSC2	NM_000548
BRCA1	NM_007294	FLT1	NM_002019	MLH1	NM_000249	PMS2	NM_000535	SDHAF2	NM_017841	TYRO3	NM_006293
BRCA2	NM_000059	FLT3	NM_004119	MSH2	NM_000251	POLD1	NM_001308632	SDHB	NM_003000	VHL	NM_000551
CDKN2A	NM_000077	FLT4	NM_182925	MSH6	NM_000179	POLE	NM_006231	SDHC	NM_001035511		
CSF1R	NM_005211	HRAS	NM_005343	MST1R	NM_001244937	PTCH1	NM_001083603	SDHD	NM_003002		
DDB2	NM_000107	IDH1	NM_005896	MTOR	NM_004958	PTEN	NM_000314	SMARCA2	NM_003070		