

Supplementary Table S1. Genes interrogated by Oncomine panel

86 genes for the detection of hotspot mutations						
AKT1	AKT2	AKT3	ALK	AR	ARAF	AXL
BRAF	BTK	CBL	CCND1	CDK4	CDK6	CHEK2
CSF1R	CTNNB1	DDR2	EGFR	ERB83	ERBB2	ERBB4
ERCC2	ESR1	EZH2	FGFR1	FGFR2	FGFR3	FGFR4
FLT3	FOXL2	GATA2	GNA11	GNAQ	GNAS	H3F3A
HIST1H3B	HNF1A	HRAS	IDH1	IDH2	JAK1	JAK2
JAK3	KIT	KNSTRN	KDR	KRAS	MAGOH	MAP2K1
MAP2K2	MAP2K4	MAPK1	MAX	MDM4	MED12	MET
MTOR	MYC	MYCN	MYD88	NFE2L2	NRAS	NTRK1
NTRK2	PDGFRA	PDGFRB	PIK3CA	PIK3CB	PPP2R1A	PTPN11
RAC1	RAF1	RET	RHEB	RHOA	ROS1	SF3B1
SMAD4	SMO	SPOP	SRC	STAT3	TERT	TOP1
U2AF1	XPO1					

48 genes with full coding exonic regions for the detection of mutations						
ARID1A	ATM	ATR	ATRX	BAP1	BRCA1	BRCA2
CDK12	CDKN1B	CDKN2A	CDKN2B	CHEK1	CREBBP	FANCA
FANCD2	FANCI	FBXW7	MLH1	MRE11A	MSH2	MSH6
NBN	NF1	NF2	NOTCH1	NOTCH2	NOTCH3	PALB2
PIK3R1	PMS2	POLE	PTCH1	PTEN	RAD51	RAD51B
RAD51C	RAD51D	RAD50	RB1	RNF43	SETD2	SLX4
SMARCA4	SMARCB1	STK11	TP53	TSC1	TSC2	

47 genes for the detection of copy number alterations						
AKT1	AKT2	AKT3	ALK	AR	AXL	BRAF
CCND1	CCND2	CCND3	CCNE1	CDK2	CDK4	CDK6
CDKN2A	CDKN2B	EGFR	ERBB2	ESR1	FGF19	FGF3
FGFR1	FGFR2	FGFR3	FGFR4	FLT3	IGF1R	KIT
KRAS	MDM2	MDM4	MET	MYC	MYCL	MYCN
NTRK1	NTRK2	NTRK3	PDGFRA	PDGFRB	PIK3CA	PIK3CB
PPARG	RICTOR	TERT	TSC1	TSC2		

51 genes for the detection of gene fusions involving intergenic and intragenic regions						
AKT2	ALK	AR	AXL	BRAF	BRCA1	BRCA2
CDKN2A	EGFR	ERB84	ERBB2	ERG	ESR1	ETV1
ETV4	ETVS	FGFR1	FGFR2	FGFR3	FGR	FLT3
JAK2	KRAS	MDM4	MET	MYB	MYBL1	NF1
NOTCH1	NOTCH4	NRG1	NTRK1	NTRK2	NTRK3	NUTM1
PDGFRA	PDGFRB	PIK3CA	PPARG	PRKACA	PRKACB	PTEN
RAD51B	RAF1	RB1	RELA	RET	ROS1	RSPO2
RSPO3	TERT					