

S1 Table. Somatic hotspot mutations and germline polymorphisms used for SGZ validation

A. Somatic hotspot mutations in Fig 3A

Gene	Mutation	Germline calls	Somatic calls
<i>AKT1</i>	E17K	8	106
<i>BRAF</i>	V600†	12	398
<i>BRAF</i>	D594†	0	56
<i>EGFR</i>	S768I	0	16
<i>EGFR</i>	L858R	5	143
<i>ERBB2</i>	S310F	3	66
<i>IDH1</i>	R132H	13	144
<i>KRAS</i>	G13†	12	281
<i>KRAS</i>	G12†	82	2196
<i>KRAS</i>	Q61†	6	218
<i>MAP2K1</i>	K57†	0	22
<i>NRAS</i>	G13†	2	35
<i>NRAS</i>	G12†	7	79
<i>NRAS</i>	Q61†	20	279
<i>PIK3CA</i>	E542†	12	286
<i>PIK3CA</i>	H1047†	20	507
<i>PIK3CA</i>	E545†	13	493

† Includes all missense mutations of the codon

B. Germline polymorphisms in Fig 3A

Gene	Mutation	Germline calls	Somatic calls
<i>GATA2</i>	P161A	350	7
<i>MAP3K1</i>	S939C	638	55
<i>NTRK1</i>	G18E	365	3
<i>BRCA2</i>	K3326*	288	5
<i>FANCF</i>	A186V	275	2
<i>PNRC1</i>	A152V	268	5
<i>GPR124</i>	V1146A	244	10
<i>TSC1</i>	K587R	217	2
<i>ZNF217</i>	M410V	218	5
<i>CREBBP</i>	N1978S	183	3
<i>BRIP1</i>	V193I	179	2
<i>CTCF</i>	P315S	140	0
<i>APC</i>	I1307K	140	2
<i>NOTCH2</i>	R91L	141	6
<i>RPTOR</i>	A862T	128	3
<i>ESR1</i>	H6Y	125	3

<i>TSHR</i>	V721F	92	1
<i>FAT3</i>	A3418S	77	1
<i>RAD52</i>	S346*	59	1
<i>PIK3C2G</i>	*1446S	45	1

