

1 **Supplementary Table 1. Several founded mutations in different solid tumor types**

TUMOR TYPE	GENE	MUTATION	
BREAST	<i>ABL1</i>	(G269R)	
	<i>JACK2</i>	(V617F)	
	<i>AKT1</i>	(E17K)	
	<i>TP53</i>	(Y205S) (Y220C) (S241P) (Q38*) (H179R) (E285K) (G244D) (F134C) (c.919 + 1G > T) (R248Q) (I232F) (Y220C) (R248Q) (R273H) (V216M)	
	<i>CDKN2A</i>	(D108N)	
	<i>PTEN</i>	(N323fs)	
	<i>BRCA2</i>	(Q969*)	
	<i>GNAQ</i>	(Q209R)	
	<i>MSH6</i>	(E1187*)	
	<i>SF3B1</i>	(K700E)	
	<i>ROS1</i>	(R2039C)	
	LUNG	<i>NF2</i>	(c.1737 + 3A > G)
		<i>JACK2</i>	(V617F)
<i>CTNNB2</i>		(S33F)	
<i>BRAF</i>		(V600E)	
<i>KRAS</i>		(G13C) (G12V)	
<i>TP53</i>		(M246R) (R273C) (P151A) (V157F) (R158L) (R273C)	
<i>SMAD4</i>		(R361C)	
<i>GNAS</i>		(R201H)	
OVARIAN		<i>MAP2K1</i>	(F129L)
	<i>KRAS</i>	(G12A)	
	<i>TP53</i>	(S183*) (R273C) (T125M) (V272M) (H193D) (P151H) (R175H) (N235D) (R248Q)	
	<i>ESR1</i>	(Y537S) (D538G)	
	<i>BRCA2</i>	(Q969*)	
COLORECTAL	<i>APC</i>	(E1309fs)	
	<i>BRAF</i>	(V600E)	
	<i>KRAS</i>	(G12V)	
	<i>AKT1</i>	(E17K)	
	<i>TP53</i>	(Y234*)	
	<i>GNAS</i>	(R201H)	
PANCREATIC	<i>IDH2</i>	(R140Q)	
	<i>KRAS</i>	(G12V) (G12D)	
	<i>TP53</i>	(R273C) (I255T) (G245S) (R175C) (R248Q)	
PROSTATIC	<i>NF2</i>	(A464V)	
	<i>NFE2L2</i>	(E79K)	
	<i>AR</i>	(L702H) (H875Y)	
	<i>PIK3CA</i>	(E542K)	
	<i>TP53</i>	(R248Q) (C238F)	
	<i>BRCA2</i>	(Q969*)	
	<i>PMS2</i>	(N775S)	
	<i>ROS1</i>	(Y2092C)	

UTERINE	<i>CTNNB1</i>	(S33C)
	<i>PIK3CA</i>	(R88Q)
	<i>TP53</i>	(Q331fs) (L35fs) (R273C)
RETINOBLASTOMA	<i>PTEN</i>	(F341L)
	<i>SMAD4</i>	(R361C)
CHOLANGIOCARCINOMA	<i>TP53</i>	(T150fs) (E285K) (E271Q)
GASTRIC	<i>TP53</i>	(V216fs) (H356R) (R175H)
SARCOMA	<i>NRAS</i>	(G12S)
	<i>PIK3CA</i>	(R93W)
	<i>TP53</i>	(C277R) (R273C) (R175H)
	<i>MLH1</i>	(R385H)
ORAL	<i>TP53</i>	(R273C)
	<i>KEAP1</i>	(R116W)
PHARYNX	<i>KEAP1</i>	(R116W)
	<i>TP53</i>	(V203L)
LARYNX	<i>TP53</i>	(P152L)
WILMS	<i>TP53</i>	(c.559 + 1G > A)
	<i>PTEN</i>	(N323fs)
	<i>ESR1</i>	(V392I)
GLIOBLASTOMA	<i>PIK3CA</i>	(E545A)

- 2 The asterisk is used in the gene nomenclature to indicate a stop mutation.