

Supplementary Table 7: Concordance of microsatellite analysis and somatic exonic mutations in *TP53*, *PPP2R1A*, and *PIK3CA* among 36 prevalence screen UCs analyzed by McConechy et al (Ref 13) and Le Gallo, Rudd et al (this study)

Tumor ID	Gene Symbol	Tumor variant called by Next-Gen Seq in McConechy et al (Ref 13)	Genomic Location (hg18) and variant called by McConechy et al (Ref 13)	Frequency of variant called by McConechy et al (Ref 13)	Probability of variant called by McConechy et al (Ref 13)	Sanger Validation attempted BY McConechy et al. (Ref 13)	Genomic location of somatic mutation in this study (Le Gallo, Rudd et al) Hg19	Coding change of somatic mutation in	Confirmed somatic mutation in this study (Le Gallo, Rudd et al)	Concordance between studies
1203T	<i>PPP2R1A</i>	p.V229M	19,57408053,G,A	0.363636364	0.5705	No	chr19:52716241	c.685G>A	p.Val229Met	Concordant
1338T	<i>PPP2R1A</i>	p.P179R	19,57407783,C,G	0.25	0.377	No	chr19:52715971	c.536C>G	p.Pro179Arg	Concordant
1413T	<i>PPP2R1A</i>	p.W257C	19,57408139,G,T	0.352941176	0.3745	No	chr19:52716327	c.771G>T	p.Trp257Cys	Concordant
1939T	<i>PPP2R1A</i>	p.N312H	19,57411080,A,C	0.55	0.77	No	chr19:52719268	c.934A>C	p.Asn312His	Concordant
2416T	<i>PPP2R1A</i>	p.P179R	19,57407783,C,G	0.777777778	0.8355	No	/	/	/	Discordant (not detected by Le Gallo, Rudd et al)
2558T	<i>PPP2R1A</i>	p.S256F	19,57408135,C,T	0.5	0.635	No	chr19:52716323	c.767C>T	p.Ser256Phe	Concordant
1467T	<i>PPP2R1A</i>	p.S256F	19,57408135,C,T	0.6	0.5895	No	chr19:52716323	c.767C>T	p.Ser256Phe	Concordant
1354T	<i>PPP2R1A</i>	p.P179R	19,57407783,C,G	0.4375	0.476	No	chr19:52715971	c.536C>G	p.Pro179Arg	Concordant
1765T	<i>PPP2R1A</i>	/	/	/	/	/	chr19:52715971	c.536C>G	p.Pro179Arg	Discordant (not reported by McConechy et al)
1203T	<i>PPP2R1A</i>	/	/	/	/	/	chr19:52719863	c.1075G>T	p.Asp359Tyr	Discordant (not reported by McConechy et al)
1208T	<i>TP53</i>	p.E171*	17,7519144,CA	0.625	0.73	No	chr17:7578419	c.511G>T	p.Glu171*	Concordant
1338T	<i>TP53</i>	p.C176S	17,7519129,A,T	0.775862069	0.834	No	chr17:7578404	c.526T>C	p.Cys176Ser	Concordant
1595T	<i>TP53</i>	p.V272L	17,7517849,CA	0.5	0.499	No	chr17:7577124	c.814G>T	p.Val272Leu	Concordant
1596T	<i>TP53</i>	p.N131del	7519259	/	/	No	chr17:7578535	c.390_392delCAA	p.Asn131del	Concordant
1690T	<i>TP53</i>	p.I195T	17,7518990,A,G	0.696969697	0.776	No	chr17:7578265	c.584T>C	p.Ile195Thr	Concordant
1698T	<i>TP53</i>	p.E294*	17,7517783,CA	0.791666667	0.763	No	chr17:7577058	c.880G>T	p.Glu294*	Concordant
1828T	<i>TP53</i>	p.C238Y	17,7518293,C,T	1	0.8735	No	chr17:7577568	c.713G>A	p.Cys238Tyr	Concordant
1910T	<i>TP53</i>	p.R273H	17,7517845,C,T	0.733333333	0.8375	No	chr17:7577120	c.818G>A	p.Arg273His	Concordant
1949T	<i>TP53</i>	p.R342*	17,7514728,G,A	0.545454545	0.7415	No	chr17:7574003	c.1024C>T	p.Arg342*	Concordant
1865T	<i>TP53</i>	p.P47S	17,7520273,G,A	0.863636364	0.7805	No	/	/	/	Discordant (germline variant by Le Gallo, Rudd et al)
1965T	<i>TP53</i>	p.V216M	17,7518928,C,T	0.833333333	0.814	No	chr17:7578203	c.646G>A	p.Val216Met	Concordant
1980T	<i>TP53</i>	p.C238R	17,7518294,A,G	0.869565217	0.837	No	chr17:7577569	c.712T>C	p.Cys238Arg	Concordant
2031T	<i>TP53</i>	p.M237I	17,7518295,C,T	0.444444444	0.561	No	chr17:7577570	c.711G>A	p.Met237Ile	Concordant
2073T	<i>TP53</i>	p.R273H	17,7517845,C,T	0.764705882	0.768	No	chr17:7577120	c.818G>A	p.Arg273His	Concordant
2087T	<i>TP53</i>	p.A159P	17,7519180,C,G	0.375	0.577	No	chr17:7578455	c.475C>G	p.Ala159Pro	Concordant
2111T	<i>TP53</i>	p.H214R	17,7518933,T,C	0.25	0.6365	No	chr17:7578208	c.641A>G	p.His214Arg	Concordant
2215T	<i>TP53</i>	p.R280G	17,7517825,T,C	0.894736842	0.8395	No	chr17:7577100	c.838A>G	p.Arg280Gly	Concordant
2416T	<i>TP53</i>	p.R280T	17,7517824,C,G	0.857142857	0.926	No	/	/	/	Discordant (not detected by Le Gallo, Rudd et al)
2465T	<i>TP53</i>	p.R248Q	17,7518263,C,T	0.473684211	0.722	No	chr17:7577538	c.743G>A	p.Arg248Gln	Concordant
2558T	<i>TP53</i>	p.P322fs	7517605	/	/	No	chr17:7576882	c.964delC	p.Pro322Hisfs*23	Concordant
1728T	<i>TP53</i>	p.K132N	17,7519259,CA	0.785714286	0.893	No	chr17:7578534	c.396G>T	p.Lys132Asn	Concordant
1467T	<i>TP53</i>	p.T18fs	7520585	/	/	No	chr17:7579863	c.50delA	p.Thr18Hisfs*26	Concordant
1765T	<i>TP53</i>	p.D281V	17,7517821,T,A	0.8125	0.809	No	chr17:7577096	c.842A>T	p.Asp281Val	Concordant
1354T	<i>TP53</i>	p.E51*	17,7520261,CA	0.666666667	0.7475	No	chr17:7579536	c.151G>T	p.Glu51*	Concordant
1469T	<i>TP53</i>	/	/	/	/	No	chr17:7577538	c.743G>A	p.Arg248Gln	Discordant (not reported by McConechy et al)
1643T	<i>TP53</i>	/	/	/	/	No	chr17:7577120	c.818G>A	p.Arg273His	Discordant (not reported by McConechy et al)
1895T	<i>TP53</i>	/	/	/	/	No	chr17:7578216	c.633delT	p.Arg213Aspfs*34	Discordant (not reported by McConechy et al)
2558T	<i>TP53</i>	/	/	/	/	No	chr17:7576882	c.964delC	p.Pro322Hisfs*23	Discordant (not reported by McConechy et al)
1203T	<i>PIK3CA</i>	p.E81A	3,180399549,A,C	0.228571429	0.4045	No	chr3:178916855	c.242A>C	p.Glu81Ala	Concordant
1203T	<i>PIK3CA</i>	p.R88Q	3,180399570,G,A	0.258064516	0.431	No	chr3:178916876	c.263G>A	p.Arg88Gln	Concordant
1203T	<i>PIK3CA</i>	p.L239R	3,180401925,T,G	0.214285714	0.6135	No	chr3:178919231	c.716T>G	p.Leu239Arg	Concordant
1241T	<i>PIK3CA</i>	p.E39K	3,180399422,G,A	0.419354839	0.567	No	chr3:178916728	c.115G>A	p.Glu39Lys	Concordant
1595T	<i>PIK3CA</i>	p.E453K	3,180410773,G,A	0.379310345	0.4415	No	chr3:178928079	c.1357G>A	p.Glu453Lys	Concordant
1850T	<i>PIK3CA</i>	p.Q546K	3,180418788,C,A	0.8	0.8255	No	chr3:178936094	c.1636C>A	p.Gln546Lys	Concordant
1895T	<i>PIK3CA</i>	p.K111E	3,180399638,A,G	0.428571429	0.672	No	chr3:178916944	c.331A>G	p.Lys111Glu	Concordant
1910T	<i>PIK3CA</i>	p.L422W	3,180410681,T,G	0.3125	0.5485	Validated	chr3:178927987	c.1265T>G	p.Leu422Trp	Concordant
1939T	<i>PIK3CA</i>	p.E365K	3,180405018,G,A	0.178571429	0.653	Validated	chr3:178922324	c.1093G>A	p.Glu365Lys	Concordant
1939T	<i>PIK3CA</i>	p.R38C	3,180399419,C,T	0.454545455	0.6665	No	chr3:178916725	c.112C>T	p.Arg38Cys	Concordant
1980T	<i>PIK3CA</i>	p.Q546R	3,180418789,A,G	0.769230769	0.7365	No	chr3:178936095	c.1637A>G	p.Gln546Arg	Concordant
2087T	<i>PIK3CA</i>	p.H1047R	3,180434779,A,G	0.459459459	0.663	No	chr3:178952085	c.3140A>G	p.His1047Arg	Concordant
1469T	<i>PIK3CA</i>	p.R88Q	3,180399570,G,A	0.310344828	0.464	No	chr3:178916876	c.263G>A	p.Arg88Gln	Concordant
1354T	<i>PIK3CA</i>	p.H1047L	3,180434779,A,T	0.709677419	0.726	No	chr3:178952085	c.3140A>T	p.His1047Leu	Concordant
1630T	<i>PIK3CA</i>	/	/	/	/	No	chr3:178936091	c.1633G>A	p.Glu545Lys	Discordant (not reported by McConechy et al)
1949T	<i>PIK3CA</i>	/	/	/	/	No	chr3:178936082	c.1624G>A	p.Glu542Lys	Discordant (not reported by McConechy et al)
2250T	<i>PIK3CA</i>	/	/	/	/	No	chr3:178917478	c.353G>A	p.Gly118Asp	Discordant (not reported by McConechy et al)
Tumor ID	Analysis	*Microsatellite status by Bethesda Markers McConechy et al					*Microsatellite status by Promega MSI kit (Le Gallo, Rudd et al)			Concordance between studies
1115T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1203T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1208T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1239T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1241T	Microsatellite status	MSI-High	/	/	/	/	MSI-High	/	/	Concordant
1338T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1354T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1413T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1467T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1469T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1595T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1596T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1630T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1643T	Microsatellite status	MSI-Low	/	/	/	/	MSS	/	/	Discordant (not detected by Le Gallo, Rudd et al) due to different MSI method
1689T	Microsatellite status	MSI-High	/	/	/	/	MSI-High	/	/	Concordant
1690T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1698T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant
1728T	Microsatellite status	MSS	/	/	/	/	MSS	/	/	Concordant

1765T	Microsatellite status	MSS						MSS				Concordant
1828T	Microsatellite status	MSS						MSS				Concordant
1850T	Microsatellite status	MSS						MSS				Concordant
1895T	Microsatellite status	MSS						MSS				Concordant
1910T	Microsatellite status	MSS						MSS				Concordant
1939T	Microsatellite status	MSS						MSS				Concordant
1949T	Microsatellite status	MSI-High						MSI-High				Concordant
1965T	Microsatellite status	MSS						MSS				Concordant
1980T	Microsatellite status	MSS						MSS				Concordant
2031T	Microsatellite status	MSS						MSS				Concordant
2073T	Microsatellite status	MSS						MSS				Concordant
2087T	Microsatellite status	MSS						MSS				Concordant
2111T	Microsatellite status	MSS						MSS				Concordant
2215T	Microsatellite status	MSS						MSS				Concordant
2250T	Microsatellite status	MSS						MSS				Concordant
2416T	Microsatellite status	MSS						MSS				Concordant
2465T	Microsatellite status	MSS						MSS				Concordant
2558T	Microsatellite status	MSS						MSS				Concordant

*In both studies microsatellite status is indicated by the number of markers with microsatellite instability (MSI). MSI-High samples have 2 or more positive MSI markers, MSI-low samples have 1 positive MSI marker, MSS (microsatellite stable) sample have no positive MSI marker: