

Supplemental Table 3. Mutation rates of key biomarkers in KRAS mutated NSCLC cohorts

Test	KRAS WT				G12V				G12A				G12C				G13				Q61				G12D				G12 Other				P-value	Q-value
	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%		
STK11	1063	11249	12312	8.60%	215	697	912	23.60%	69	226	295	23.40%	430	1442	1872	23.00%	118	208	326	36.20%	82	231	313	26.20%	96	582	678	14.20%	61	148	209	29.20%	p<0.0001*	q<0.0001*
GNAS	36	12287	12323	0.30%	17	889	906	1.90%	2	294	296	0.70%	8	1859	1867	0.40%	2	324	326	0.60%	1	311	312	0.30%	23	660	683	3.40%	1	207	208	0.50%	p<0.0001*	q<0.0001*
BRAF	594	11710	12304	4.80%	13	889	902	1.40%	7	289	296	2.40%	19	1844	1863	1.00%	17	308	325	5.20%	8	303	311	2.60%	5	671	676	0.70%	3	205	208	1.40%	p<0.0001*	q<0.0001*
KEAP1	518	11843	12361	4.20%	52	862	914	5.70%	18	280	298	6.00%	118	1763	1881	6.30%	43	284	327	13.10%	16	297	313	5.10%	25	659	684	3.70%	12	197	209	5.70%	p<0.0001*	0.0001*
NF1	943	7252	8195	11.50%	17	580	597	2.80%	7	191	198	3.50%	63	1176	1239	5.10%	51	187	238	21.40%	9	199	208	4.30%	13	433	446	2.90%	6	137	143	4.20%	p<0.0001*	q<0.0001*
TP53	8887	3192	12079	73.60%	404	475	879	46.00%	122	161	283	43.10%	888	928	1816	48.90%	169	151	320	52.80%	109	187	296	36.80%	288	366	654	44.00%	113	91	204	55.40%	p<0.0001*	0.002*
UZAF1	68	12245	12313	0.60%	32	880	912	3.50%	11	286	297	3.70%	53	1819	1872	2.80%	11	315	326	3.40%	4	308	312	1.30%	15	664	679	2.20%	16	193	209	7.70%	0.002*	0.038*
FGFR4	0	11948	11948	0.00%	0	895	895	0.00%	0	288	288	0.00%	0	1833	1833	0.00%	0	317	317	0.00%	0	306	306	0.00%	0	672	672	0.00%	1	203	204	0.50%	0.002*	0.038*
VHL	16	12370	12386	0.10%	0	915	915	0.00%	0	298	298	0.00%	0	1881	1881	0.00%	0	327	327	0.00%	0	313	313	0.00%	0	684	684	0.00%	1	209	210	0.50%	0.002*	0.038*
ATM	282	11935	12217	2.30%	70	826	896	7.80%	23	273	296	7.80%	162	1677	1839	8.80%	21	304	325	6.50%	29	280	309	9.40%	33	640	673	4.90%	9	199	208	4.30%	0.014*	0.205
CDKN2A	1253	10522	11775	10.60%	83	788	871	9.50%	18	268	286	6.30%	107	1698	1805	5.90%	27	288	315	8.60%	17	288	305	5.60%	49	615	664	7.40%	17	184	201	8.50%	0.025*	0.241
EGFR	2038	10320	12358	16.50%	2	909	911	0.20%	2	296	298	0.70%	1	1878	1879	0.10%	0	327	327	0.00%	3	310	313	1.00%	3	678	681	0.40%	0	210	210	0.00%	0.026*	0.241
POLE	3	12316	12319	0.00%	1	910	911	0.10%	0	298	298	0.00%	0	1871	1871	0.00%	0	327	327	0.00%	0	312	312	0.00%	0	682	682	0.00%	1	209	210	0.50%	0.074	0.381
AKT1	41	12296	12337	0.30%	0	908	908	0.00%	1	296	297	0.30%	3	1871	1874	0.20%	0	325	325	0.00%	1	309	310	0.30%	2	679	681	0.30%	0	210	210	0.00%	0.627	0.97
RAF1	17	12044	12061	0.10%	1	895	896	0.10%	1	290	291	0.30%	2	1834	1836	0.10%	0	321	321	0.00%	0	308	308	0.00%	0	670	670	0.00%	0	208	208	0.00%	0.727	0.97
ERBB2	256	12126	12382	2.10%	0	913	913	0.00%	0	298	298	0.00%	3	1879	1882	0.20%	1	326	327	0.30%	0	313	313	0.00%	1	683	684	0.10%	0	210	210	0.00%	0.729	0.97
PTEN	565	10971	11536	4.90%	10	856	866	1.20%	3	283	286	1.00%	16	1781	1797	0.90%	0	315	315	0.00%	3	299	302	1.00%	6	648	654	0.90%	2	198	200	1.00%	0.731	0.97
NFE2L2	543	11739	12282	4.40%	5	899	904	0.60%	3	292	295	1.00%	17	1844	1861	0.90%	3	323	326	0.90%	4	305	309	1.30%	6	666	672	0.90%	3	207	210	1.40%	0.871	0.97

*: p or q values <0.05