

Supplemental Table 4. Key Biomarkers for KRAS mutation subtypes in adenocarcinoma (A) and squamous cell (B) NSCLC histologies.

A.

Test for Adenocarcinoma NSCLC	G12V				G12A				G12C				G13				Q61				G12D				G12 Other				P-value	Q-value
	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%		
TP53	306	428	734	41.70%	94	142	236	39.80%	691	802	1493	46.30%	135	129	264	51.10%	90	160	250	36.00%	209	320	529	39.50%	86	80	166	51.80%	p<0.001*	0.006*
STK11	195	570	765	25.50%	58	189	247	23.50%	366	1172	1538	23.80%	100	168	268	37.30%	72	195	267	27.00%	87	465	552	15.80%	52	119	171	30.40%	p<0.0001*	q<0.0001*
ATM	66	684	750	8.80%	21	227	248	8.50%	146	1366	1512	9.70%	18	250	268	6.70%	25	238	263	9.50%	30	520	550	5.50%	8	161	169	4.70%	0.031*	0.246
KEAP1	47	720	767	6.10%	14	235	249	5.60%	96	1451	1547	6.20%	34	235	269	12.60%	13	254	267	4.90%	19	538	557	3.40%	10	160	170	5.90%	p<0.0001*	0.004*
CDKN2A	66	668	734	9.00%	14	230	244	5.70%	81	1410	1491	5.40%	17	244	261	6.50%	16	245	261	6.10%	42	501	543	7.70%	14	152	166	8.40%	0.059	0.310
U2AF1	28	737	765	3.70%	11	237	248	4.40%	45	1495	1540	2.90%	10	259	269	3.70%	4	262	266	1.50%	13	540	553	2.40%	13	157	170	7.60%	0.011*	0.144
BRAF	10	747	757	1.30%	4	244	248	1.60%	16	1515	1531	1.00%	13	255	268	4.90%	7	258	265	2.60%	5	548	553	0.90%	2	167	169	1.20%	p<0.001*	0.006*
NFE2L2	5	752	757	0.70%	3	243	246	1.20%	14	1521	1535	0.90%	2	267	269	0.70%	3	260	263	1.10%	4	545	549	0.70%	3	168	171	1.80%	0.857	0.963
PTEN	7	715	722	1.00%	2	237	239	0.80%	12	1467	1479	0.80%	0	263	263	0.00%	3	255	258	1.20%	5	529	534	0.90%	2	160	162	1.20%	0.803	0.963
ERBB2	0	766	766	0.00%	0	249	249	0.00%	3	1545	1548	0.20%	1	268	269	0.40%	0	267	267	0.00%	1	556	557	0.20%	0	171	171	0.00%	0.721	0.963
RAF1	1	749	750	0.10%	1	242	243	0.40%	2	1508	1510	0.10%	0	265	265	0.00%	0	262	262	0.00%	0	549	549	0.00%	0	169	169	0.00%	0.732	0.963
AKT1	0	761	761	0.00%	1	248	249	0.40%	2	1539	1541	0.10%	0	267	267	0.00%	0	264	264	0.00%	2	552	554	0.40%	0	171	171	0.00%	0.477	0.963
EGFR	2	763	765	0.30%	2	247	249	0.80%	0	1545	1545	0.00%	0	269	269	0.00%	3	264	267	1.10%	2	552	554	0.40%	0	171	171	0.00%	0.008	0.140
POLE	1	763	764	0.10%	0	249	249	0.00%	0	1539	1539	0.00%	0	269	269	0.00%	0	266	266	0.00%	0	555	555	0.00%	1	170	171	0.60%	0.070	0.340

B.

Test for Squamous NSCLC	G12V				G12A				G12C				G13				Q61				G12D				G12 Other				P-value	Q-value
	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%	+	-	Total	%		
TP53	18	3	21	85.70%	6	2	8	75.00%	38	26	64	59.40%	12	2	14	85.70%	2	3	5	40.00%	21	8	29	72.40%	8	0	8	100.00%	0.037*	0.352
STK11	1	20	21	4.80%	3	6	9	33.30%	8	58	66	12.10%	5	9	14	35.70%	0	5	5	0.00%	0	29	29	0.00%	3	5	8	37.50%	0.003*	0.061
CDKN2A	4	13	17	23.50%	3	6	9	33.30%	6	53	59	10.20%	5	7	12	41.70%	0	5	5	0.00%	3	24	27	11.10%	0	7	7	0.00%	0.040*	0.352
ATM	1	19	20	5.00%	0	9	9	0.00%	5	60	65	7.70%	0	13	13	0.00%	0	5	5	0.00%	0	28	28	0.00%	0	8	8	0.00%	0.554	0.883
KEAP1	0	21	21	0.00%	0	9	9	0.00%	4	62	66	6.10%	2	12	14	14.30%	0	5	5	0.00%	1	28	29	3.40%	0	8	8	0.00%	0.485	0.836
NFE2L2	0	21	21	0.00%	0	9	9	0.00%	2	62	64	3.10%	1	12	13	7.70%	0	5	5	0.00%	2	26	28	7.10%	0	8	8	0.00%	0.748	0.980
U2AF1	3	18	21	14.30%	0	9	9	0.00%	2	64	66	3.00%	1	12	13	7.70%	0	5	5	0.00%	0	29	29	0.00%	1	7	8	12.50%	0.217	0.572
BRAF	0	21	21	0.00%	1	8	9	11.10%	0	66	66	0.00%	1	12	13	7.70%	0	5	5	0.00%	0	28	28	0.00%	0	8	8	0.00%	0.056	0.425
PTEN	1	20	21	4.80%	0	9	9	0.00%	0	64	64	0.00%	0	13	13	0.00%	0	5	5	0.00%	1	26	27	3.70%	0	8	8	0.00%	0.639	0.910

+ :presence of corresponding co-mutation

- :absence of corresponding co-mutation

*: p or q values <0.05