

Supplementary Table 1. This table shows the sum of positions called by VarScan Somatic, RVD2, muTect and Strelka in 59kbp PAXIP1 gene from chr7:154735400 to 154794682. The first column is the position index corresponding to Fig 6 in the paper. The second column is the actual position in PAXIP1 gene with respect to index. The Third column is the reference base. The forth and fifth columns are the depth matrix for Normal and Case sample respectively. The last four columns are the mutation detection status from the four algorithms. Blank cell indicates this position is not called by the algorithm in the header.

Index	Actual Position	REF	Control	Case	VarScan2 Somatic	RVD2	muTect	Strelka
Format			A:C:G:T	A:C:G:T				
1	chr7:154736692	C	0:16:0:3	0:32:0:6	Germline		Call	
2	chr7:154736778	A	43:3:0:0	58:2:0:0	Germline			
3	chr7:154736838	A	40:0:0:0	42:2:0:0	Somatic			
4	chr7:154737950	A	50:0:0:0	86:0:2:0	Somatic			
5	chr7:154739981	T	0:0:0:50	0:0:2:58	Somatic			
6	chr7:154740723	T	0:0:0:60	0:0:2:69	Somatic			
7	chr7:154740848	A	37:0:0:0	56:2:0:0	Somatic			
8	chr7:154743899	C	0:0:0:44	0:0:0:71	Germline	Germline	Call	
9	chr7:154745094	G	0:0:47:0	2:0:68:0	Somatic			
10	chr7:154747295	T	0:0:0:41	0:0:2:82	Somatic			
11	chr7:154749452	T	0:0:3:29	0:0:2:37	Germline			
12	chr7:154749704	G	7:0:19:0	2:0:29:0	Germline	Germline/Somatic	Call	
13	chr7:154751731	A	52:0:0:0	74:2:0:0	Somatic			
14	chr7:154751818	T	0:0:0:57	0:1:4:75	Somatic			
15	chr7:154753635	T	0:38:0:0	0:63:0:1	Germline	Germline/Somatic	Call	
16	chr7:154754218	G	0:0:49:0	0:0:65:2	Somatic			
17	chr7:154754371	T	0:19:0:31	0:62:0:0	LOH	Germline/Somatic	Call	
18	chr7:154754860	T	0:0:0:50	0:0:2:61	Somatic			
19	chr7:154755810	T	0:0:0:49	0:2:0:58	Somatic			
20	chr7:154755836	A	58:0:0:0	64:3:0:0	Somatic			
21	chr7:154757232	A	40:0:0:0	55:2:0:0	Somatic			
22	chr7:154757503	T	0:0:0:50	0:0:2:69	Somatic			
23	chr7:154757988	A	57:0:0:0	69:3:0:0	Somatic			
24	chr7:154758813	G	15:0:28:0	54:0:0:0	LOH	Germline/Somatic	Call	
25	chr7:154759833	T	0:0:0:48	0:0:2:64	Somatic			
26	chr7:154760439	A	37:0:0:0	0:38:0:0	Somatic	Somatic	Call	Somatic
27	chr7:154760538	G	0:0:61:0	0:0:44:2	Somatic			
28	chr7:154760592	T	0:0:0:47	0:0:2:38	Somatic			
29	chr7:154760658	T	0:0:0:52	0:0:2:47	Somatic			
30	chr7:154760790	A	54:0:0:0	66:2:0:0	Somatic			
31	chr7:154762296	T	0:0:0:51	0:0:2:74	Somatic			
32	chr7:154762409	T	0:0:0:32	0:0:2:51	Somatic			
33	chr7:154762415	A	27:2:0:0	47:3:0:0	Germline			
34	chr7:154762957	T	0:0:0:37	2:0:0:54	Somatic			
35	chr7:154763136	A	61:0:0:0	63:0:2:0	Somatic			
36	chr7:154763337	T	0:0:0:43	0:0:2:80	Somatic			
37	chr7:154766365	A	53:0:0:0	57:2:0:0	Somatic			
38	chr7:154766388	A	47:0:0:0	67:2:0:0	Somatic			
39	chr7:154766700	C	4:21:0:0	10:42:0:0			Call	

Index	Actual Position	REF	Control	Case	VarScan2 Somatic	RVD2	muTect	Strelka
40	chr7:154766732	T	0:0:0:31	0:0:5:40	Somatic	Somatic	Call	
41	chr7:154766832	A	34:0:0:0	43:4:0:0	Somatic	Somatic		
42	chr7:154766834	T	0:0:0:34	0:2:0:44	Somatic			
43	chr7:154766857	A	29:0:0:0	33:2:0:0	Somatic			
44	chr7:154767108	T	0:0:0:56	0:0:2:64	Somatic			
45	chr7:154767456	T	0:0:0:40	0:0:2:74	Somatic			
46	chr7:154767801	A	47:0:0:0	67:2:0:0	Somatic			
47	chr7:154768640	T	0:0:0:67	0:0:2:97	Somatic			
48	chr7:154769094	G	0:0:46:0	0:0:63:2	Somatic			
49	chr7:154771488	T	0:0:0:50	0:0:2:60	Somatic			
50	chr7:154772261	A	47:0:0:0	72:2:0:0	Somatic			
51	chr7:154775220	A	47:0:0:0	85:2:1:0	Somatic			
52	chr7:154775236	T	0:0:0:47	0:0:2:88	Somatic			
53	chr7:154775872	A	55:0:0:0	71:2:0:1	Somatic			
54	chr7:154777014	C	0:49:0:0	0:65:2:0	Somatic		Call	
55	chr7:154777118	A	46:0:0:0	31:4:0:0	Somatic	Somatic	Call	
56	chr7:154777687	G	0:0:45:0	0:0:50:2	Somatic			
57	chr7:154777955	T	0:0:0:52	0:0:2:47	Somatic			
58	chr7:154778892	A	55:0:0:0	44:2:0:0	Somatic			
59	chr7:154779690	A	45:0:0:0	52:2:0:0	Somatic			
60	chr7:154780960	C	0:0:0:42	0:0:0:56	Germline	Germline	Call	
61	chr7:154781700	A	53:3:0:0	79:2:0:0	Germline			
62	chr7:154781769	G	0:0:16:4	0:0:21:1	LOH			
63	chr7:154781944	T	0:0:0:56	0:0:2:51	Somatic			
64	chr7:154782120	A	48:0:0:0	44:2:0:0	Somatic			
65	chr7:154782770	A	59:0:0:0	91:2:0:0	Somatic			
66	chr7:154782848	A	60:0:0:0	68:2:0:0	Somatic			
67	chr7:154782852	A	57:0:0:0	67:2:0:0	Somatic			
68	chr7:154783399	A	46:0:0:0	65:2:0:0	Somatic			
69	chr7:154784291	C	0:22:0:0	2:42:0:0	Somatic			
70	chr7:154784297	T	0:0:0:21	0:2:0:39	Somatic			
71	chr7:154784369	A	0:0:39:0	0:0:60:0	Germline	Germline	Call	
72	chr7:154787355	T	0:0:0:39	0:0:2:56	Somatic			
73	chr7:154787357	C	0:0:0:46	0:0:0:62	Germline	Germline	Call	
74	chr7:154787367	C	0:0:0:42	0:0:0:56	Germline	Germline	Call	
75	chr7:154787612	A	23:0:25:0	68:0:0:0	LOH	Germline/Somatic		
76	chr7:154788212	A	62:0:0:0	77:2:0:0	Somatic			
77	chr7:154788798	A	24:0:23:0	58:0:0:0	LOH	Germline/Somatic		
78	chr7:154789174	A	53:0:0:0	72:2:0:0	Somatic			
79	chr7:154789488	T	0:0:0:60	0:0:2:78	Somatic			
80	chr7:154790006	T	0:0:0:49	0:0:2:54	Somatic			
81	chr7:154793405	A	56:0:0:0	58:2:0:0	Somatic			
82	chr7:154793667	A	51:0:0:0	60:2:0:0	Somatic			
83	chr7:154794177	T	0:0:0:38	0:2:0:51	Somatic			
84	chr7:154794220	A	29:2:0:0	42:5:0:0	Germline		Call	
85	chr7:154794358	T	0:0:0:38	0:2:0:33	Somatic			