

S1 Table. Target genes of CancerSCAN version 2

	Genes	SNV/Indel/CNV	Fusion	Promoter
1	ABL1	O	O	X
2	ABL2	O	X	X
3	ACVR1B	O	X	X
4	AKT1	O	X	X
5	AKT2	O	X	X
6	AKT3	O	X	X
7	ALK	O	O	X
8	ALOX12B	O	X	X
9	APC	O	X	X
10	APCDD1	O	X	X
11	APOBEC3A	O	X	X
12	APOBEC3B	O	X	X
13	AR	O	X	X
14	ARAF	O	X	X
15	ARFRP1	O	X	X
16	ARID1A	O	X	X
17	ARID1B	O	X	X
18	ARID2	O	X	X
19	ASXL1	O	X	X
20	ATM	O	X	X
21	ATR	O	X	X
22	ATRX	O	X	X
23	AURKA	O	X	X
24	AURKB	O	X	X
25	AXIN1	O	X	X
26	AXL	O	X	X
27	B2M	O	X	X
28	BACH1	O	X	X
29	BAP1	O	X	X
30	BARD1	O	X	X
31	BCL2	O	O	X
32	BCL2A1	O	X	X
33	BCL2L1	O	X	X
34	BCL2L2	O	X	X
35	BCL6	O	X	X
36	BCOR	O	X	X
37	BCORL1	O	X	X
38	BCR	O	O	X
39	BLM	O	X	X
40	BRAF	O	O	X
41	BRCA1	O	X	X
42	BRCA2	O	X	X
43	BRD2	O	X	X
44	BRD3	O	X	X
45	BRD4	O	X	X
46	BRIP1	O	X	X

47	BTG1	0	X	X
48	BTK	0	X	X
49	C11ORF30	0	X	X
50	C15ORF55	0	X	X
51	CARD11	0	X	X
52	CASP8	0	X	X
53	CBFB	0	X	X
54	CBL	0	X	X
55	CCND1	0	X	X
56	CCND2	0	X	X
57	CCND3	0	X	X
58	CCNE1	0	X	X
59	CD79A	0	X	X
60	CD79B	0	X	X
61	CDC42	0	X	X
62	CDC73	0	X	X
63	CDH1	0	X	X
64	CDH2	0	X	X
65	CDH20	0	X	X
66	CDH5	0	X	X
67	CDK12	0	X	X
68	CDK4	0	X	X
69	CDK6	0	X	X
70	CDK8	0	X	X
71	CDKN1B	0	X	X
72	CDKN2A	0	X	X
73	CDKN2B	0	X	X
74	CDKN2C	0	X	X
75	CDX2	0	X	X
76	CEBPA	0	X	X
77	CHD1	0	X	X
78	CHD2	0	X	X
79	CHD4	0	X	X
80	CHEK1	0	X	X
81	CHEK2	0	X	X
82	CHUK	0	X	X
83	CIC	0	X	X
84	CRBN	0	X	X
85	CREBBP	0	X	X
86	CRKL	0	X	X
87	CRLF2	0	X	X
88	CSF1R	0	X	X
89	CTCF	0	X	X
90	CTNNA1	0	X	X
91	CTNNB1	0	X	X
92	CUL4A	0	X	X
93	CUL4B	0	X	X
94	CYLD	0	X	X
95	CYP17A1	0	X	X

96	DAXX	O	X	X
97	DDR2	O	X	X
98	DIS3	O	X	X
99	DNMT1	O	X	X
100	DNMT3A	O	X	X
101	DOCK2	O	X	X
102	DOT1L	O	X	X
103	EGFR	O	O	X
104	ELMO1	O	X	X
105	EP300	O	X	X
106	EPHA3	O	X	X
107	EPHA5	O	X	X
108	EPHA6	O	X	X
109	EPHA7	O	X	X
110	EPHB1	O	X	X
111	EPHB4	O	X	X
112	EPHB6	O	X	X
113	ERBB2	O	X	X
114	ERBB3	O	X	X
115	ERBB4	O	X	X
116	ERCC2	O	X	X
117	ERG	O	X	X
118	ESR1	O	X	X
119	ETV1	O	O	X
120	ETV4	O	O	X
121	ETV5	O	O	X
122	ETV6	O	O	X
123	EWSR1	O	O	X
124	EYA2	O	X	X
125	EZH2	O	X	X
126	FAM123B	O	X	X
127	FAM46C	O	X	X
128	FANCA	O	X	X
129	FANCC	O	X	X
130	FANCD2	O	X	X
131	FANCE	O	X	X
132	FANCF	O	X	X
133	FANCG	O	X	X
134	FANCI	O	X	X
135	FANCL	O	X	X
136	FANCM	O	X	X
137	FAT3	O	X	X
138	FBXW7	O	X	X
139	FGF10	O	X	X
140	FGF12	O	X	X
141	FGF14	O	X	X
142	FGF19	O	X	X
143	FGF23	O	X	X
144	FGF3	O	X	X

145	FGF4	O	X	X
146	FGF6	O	X	X
147	FGF7	O	X	X
148	FGFR1	O	O	X
149	FGFR2	O	X	X
150	FGFR3	O	O	X
151	FGFR4	O	X	X
152	FLT1	O	X	X
153	FLT3	O	X	X
154	FLT4	O	X	X
155	FOXA1	O	X	X
156	FOXL2	O	X	X
157	FUBP1	O	X	X
158	GATA1	O	X	X
159	GATA2	O	X	X
160	GATA3	O	X	X
161	GID4	O	X	X
162	GNA11	O	X	X
163	GNA13	O	X	X
164	GNAQ	O	X	X
165	GNAS	O	X	X
166	GPR124	O	X	X
167	GRIN2A	O	X	X
168	GSK3B	O	X	X
169	GUCY1A2	O	X	X
170	H3F3A	O	X	X
171	HGF	O	X	X
172	HIST1H3B	O	X	X
173	HLA-A	O	X	X
174	HNF1A	O	X	X
175	HOXA3	O	X	X
176	HRAS	O	X	X
177	HSP90AA1	O	X	X
178	IDH1	O	X	X
179	IDH2	O	X	X
180	IGF1	O	X	X
181	IGF1R	O	X	X
182	IGF2R	O	X	X
183	IKBKE	O	X	X
184	IKZF1	O	X	X
185	IL7R	O	X	X
186	INHBA	O	X	X
187	INPP4B	O	X	X
188	INSR	O	X	X
189	IRF4	O	X	X
190	IRS2	O	X	X
191	ITK	O	X	X
192	JAK1	O	X	X
193	JAK2	O	X	X

194	JAK3	O	X	X
195	JUN	O	X	X
196	KAT6A	O	X	X
197	KDM5A	O	X	X
198	KDM5C	O	X	X
199	KDM6A	O	X	X
200	KDR	O	X	X
201	KEAP1	O	X	X
202	KIT	O	X	X
203	KLF4	O	X	X
204	KLHL6	O	X	X
205	KMT2A	O	O	X
206	KRAS	O	X	X
207	LMO1	O	X	X
208	LRP1B	O	X	X
209	LRP6	O	X	X
210	LTK	O	X	X
211	MAML1	O	X	X
212	MAP2K1	O	X	X
213	MAP2K2	O	X	X
214	MAP2K4	O	X	X
215	MAP3K1	O	X	X
216	MAP3K13	O	X	X
217	MCL1	O	X	X
218	MDM2	O	X	X
219	MDM4	O	X	X
220	MED12	O	X	X
221	MEF2B	O	X	X
222	MEN1	O	X	X
223	MET	O	X	X
224	MITF	O	X	X
225	MLH1	O	X	X
226	MLL	O	X	X
227	MLL2	O	X	X
228	MLL3	O	X	X
229	MPL	O	X	X
230	MRE11A	O	X	X
231	MSH2	O	X	X
232	MSH6	O	X	X
233	MTOR	O	X	X
234	MUTYH	O	X	X
235	MYC	O	O	X
236	MYCL1	O	X	X
237	MYCN	O	X	X
238	MYD88	O	X	X
239	NCOA3	O	X	X
240	NCOR1	O	X	X
241	NF1	O	X	X
242	NF2	O	X	X

243	NFE2L2	O	X	X
244	NFKBIA	O	X	X
245	NKX2-1	O	X	X
246	NKX3-1	O	X	X
247	NOTCH1	O	X	X
248	NOTCH2	O	X	X
249	NOTCH3	O	X	X
250	NOTCH4	O	X	X
251	NPM1	O	X	X
252	NRAS	O	X	X
253	NSD1	O	X	X
254	NTRK1	O	O	X
255	NTRK2	O	X	X
256	NTRK3	O	X	X
257	NUP93	O	X	X
258	PAK3	O	X	X
259	PAK7	O	X	X
260	PALB2	O	X	X
261	PARP1	O	X	X
262	PARP2	O	X	X
263	PARP3	O	X	X
264	PARP4	O	X	X
265	PAX5	O	X	X
266	PBRM1	O	X	X
267	PDGFRA	O	O	X
268	PDGFRB	O	X	X
269	PDK1	O	X	X
270	PGR	O	X	X
271	PHF6	O	X	X
272	PHLPP2	O	X	X
273	PIK3C3	O	X	X
274	PIK3CA	O	X	X
275	PIK3CG	O	X	X
276	PIK3R1	O	X	X
277	PIK3R2	O	X	X
278	PKHD1	O	X	X
279	PLCG1	O	X	X
280	PMS2	O	X	X
281	PNRC1	O	X	X
282	PPP2R1A	O	X	X
283	PRDM1	O	X	X
284	PRKAR1A	O	X	X
285	PRKDC	O	X	X
286	PRPF40B	O	X	X
287	PRSS8	O	X	X
288	PTCH1	O	X	X
289	PTCH2	O	X	X
290	PTEN	O	X	X
291	PTPN11	O	X	X

292	PTPRD	O	X	X
293	RAB35	O	X	X
294	RAC1	O	X	X
295	RAC2	O	X	X
296	RAD50	O	X	X
297	RAD51	O	X	X
298	RAD51B	O	X	X
299	RAD51C	O	X	X
300	RAD51D	O	X	X
301	RAD52	O	X	X
302	RAD54L	O	X	X
303	RAF1	O	O	X
304	RARA	O	O	X
305	RB1	O	X	X
306	REL	O	X	X
307	RET	O	O	X
308	RICTOR	O	X	X
309	RNF43	O	X	X
310	ROBO1	O	X	X
311	ROBO2	O	X	X
312	ROS1	O	O	X
313	RPA1	O	X	X
314	RPTOR	O	X	X
315	RUNX1	O	X	X
316	RUNX1T1	O	X	X
317	SEMA3A	O	X	X
318	SEMA3E	O	X	X
319	SETBP1	O	X	X
320	SETD2	O	X	X
321	SF3A1	O	X	X
322	SF3B1	O	X	X
323	SFRS7	O	X	X
324	SH2B3	O	X	X
325	SKP2	O	X	X
326	SLIT2	O	X	X
327	SMAD2	O	X	X
328	SMAD3	O	X	X
329	SMAD4	O	X	X
330	SMARCA1	O	X	X
331	SMARCA4	O	X	X
332	SMARCB1	O	X	X
333	SMARCD1	O	X	X
334	SMO	O	X	X
335	SOCS1	O	X	X
336	SOX10	O	X	X
337	SOX2	O	X	X
338	SOX9	O	X	X
339	SPEN	O	X	X
340	SPOP	O	X	X

341	SRC	O	X	X
342	SRSF1	O	X	X
343	SRSF2	O	X	X
344	STAG2	O	X	X
345	STAT3	O	X	X
346	STAT4	O	X	X
347	STK11	O	X	X
348	SUFU	O	X	X
349	SYK	O	X	X
350	TBX22	O	X	X
351	TBX3	O	X	X
352	TET2	O	X	X
353	TERT	X	X	O
354	TGFBR2	O	X	X
355	TIPARP	O	X	X
356	TMPRSS2	O	O	X
357	TNFAIP3	O	X	X
358	TNFRSF14	O	X	X
359	TNKS	O	X	X
360	TNKS2	O	X	X
361	TOP1	O	X	X
362	TP53	O	X	X
363	TRAF7	O	X	X
364	TRRAP	O	X	X
365	TSC1	O	X	X
366	TSC2	O	X	X
367	TSHR	O	X	X
368	U2AF1	O	X	X
369	U2AF2	O	X	X
370	USP9X	O	X	X
371	VHL	O	X	X
372	WHSC1L1	O	X	X
373	WISP3	O	X	X
374	WT1	O	X	X
375	WWP1	O	X	X
376	XBP1	O	X	X
377	XPO1	O	X	X
378	XRCC3	O	X	X
379	ZNF217	O	X	X
380	ZNF703	O	X	X
381	ZRSR2	O	X	X
