

**Additional file 1: Table S1**

No.	Gene Symbol	Gene Name	Fold change compared to normal colon in WT vehicle controls							
			WT mice				Nrf2 <sup>-/-</sup> mice			
			Normal		Tumor		Normal		Tumor	
			-SFN	+SFN	-SFN	+SFN	-SFN	+SFN	-SFN	+SFN
1	Abl1	C-abl oncogene 1, non-receptor tyrosine kinase	1.00	1.57	3.41	-1.24	1.38	1.33	7.52	1.3
2	Akt1	Thymoma viral proto-oncogene 1	1.00	1.21	-1.01	1.06	-1.09	-1.21	3.1	-1.19
3	Apc	Adenomatosis polyposis coli	1.00	1.27	-1.1	-1.2	-1.73	-3.76	-2.3	-2.95
4	Atm	Ataxia telangiectasia mutated homolog (human)	1.00	1.53	1.52	1.34	1.27	1.66	1.34	1.67
5	Bax	Bcl2-associated X protein	1.00	1.65	2.04	1.83	1.25	1.22	9.99	1.69
6	Bcl2	B-cell leukemia/lymphoma 2	1.00	2.16	1.21	-1.04	1.11	-2.16	1.48	1.24
7	Bcl2l1	Bcl2-like 1	1.00	1.32	1.32	1.6	-1.85	-1.77	3.18	1.38
8	Bcr	Breakpoint cluster region	1.00	2.31	1.05	1.03	-2.17	-1.45	-1.58	-1.27
9	Brca1	Breast cancer 1	1.00	-1.8	2.08	2.5	1.3	-1.65	3.03	1.96
10	Brca2	Breast cancer 2	1.00	3.14	2.41	2.23	2.08	1.71	7.46	2.28
11	Casp8	Caspase 8	1.00	3.23	2.07	2.55	2.31	2.13	1.29	2.31
12	Ccnd1	Cyclin D1	1.00	1.99	2.68	3.16	2.6	1.77	1.91	2.00
13	Cdh1	Cadherin 1	1.00	-1.04	-1.1	-1.43	-1.45	-1.64	1.69	-1.57
14	Cdk4	Cyclin-dependent kinase 4	1.00	-1.09	3.97	3.05	1.30	-1.13	4.00	3.71
15	Cdkn1a	Cyclin-dependent kinase inhibitor 1A (p21)	1.00	1.08	-1.6	-1.48	-2.1	-1.49	2.13	-2.17
16	Cdkn2a	Cyclin-dependent kinase inhibitor 2A	1.00	-1.22	12.8	20.53	2.69	1.6	19.9	8.46
17	Cdkn2b	Cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4)	1.00	2.14	-5.46	-2.1	1.67	1.42	-3.63	-3.39
18	Cdkn3	Cyclin-dependent kinase inhibitor 3	1.00	1.67	1.1	-1.08	1.4	1.65	1.4	1.75
19	Ctnnb1	Catenin (cadherin associated protein), beta 1	1.00	1.2	-1.02	1.07	-1.68	-1.48	-1.34	-1.27
20	E2f1	E2F transcription factor 1	1.00	1.66	1.49	1.58	1.99	-1.26	1.19	1.28
21	Egf	Epidermal growth factor	1.00	1.48	-3.16	-3.51	1.11	1.67	2.41	-4.47
22	Elk1	ELK1, member of ETS oncogene family	1.00	2.69	1.37	1.45	1.16	1.03	1.56	1.37

23	ErbB2	V-erb-b2 erythroblastic leukemia viral oncogene homolog 2	1.00	1.46	-2.22	-1.51	-1.83	-1.25	-1.38	-2.1
24	Esr1	Estrogen receptor 1 (alpha)	1.00	1.91	11.24	7.01	-1.16	-1.75	17.75	7.26
25	Ets1	E26 avian leukemia oncogene 1, 5' domain	1.00	2.08	2.64	1.53	1.72	-1.45	9.99	2.03
26	Fhit	Fragile histidine triad gene	1.00	-1.09	2.13	1.85	-1.19	1.25	1.91	1.79
27	Fos	FBJ osteosarcoma oncogene	1.00	-1.42	-2.45	-2.14	-3.94	-4.56	-2.23	-2.57
28	Foxd3	Forkhead box D3	1.00	-1.16	-1.14	1.04	-1.57	-1.48	-1.91	1.27
29	Hgf	Hepatocyte growth factor	1.00	-1.39	2.68	2.55	1.95	-1.13	2.68	3.14
30	Hic1	Hypermethylated in cancer 1	1.00	1.56	1.77	1.62	1.26	-1.32	4.44	1.66
31	Hras1	Harvey rat sarcoma virus oncogene 1	1.00	7.52	1.66	1.39	1.93	1.21	3.2	2.03
32	Igf2r	Insulin-like growth factor 2 receptor	1.00	1.4	-1.97	-1.34	-1.47	-1.45	1.56	-1.97
33	Jak2	Janus kinase 2	1.00	1.25	2.93	2.3	1.65	-1.1	4.53	2.71
34	Jun	Jun oncogene	1.00	1.59	1.46	1.39	-1.39	-1.6	5.62	2.01
35	Junb	Jun-B oncogene	1.00	-1.51	-2.33	-1.96	-2.53	-2.19	1.66	-3.18
36	Jund	Jun proto-oncogene related gene d	1.00	-1.58	-1.84	-1.07	-2.85	-2.36	-1.54	-1.75
37	Kit	Kit oncogene	1.00	-1.36	1.78	1.69	1.53	-1.12	3.23	2.3
38	Kitl	Kit ligand	1.00	1.95	-1.03	-2.51	-2.5	-1.97	2.79	-1.75
39	Kras	V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog	1.00	1.35	-2.95	-4.35	1.29	-1.07	-1.4	-2.39
40	Mcl1	Myeloid cell leukemia sequence 1	1.00	1.01	1.35	1.55	1.12	-1.01	1.93	2.64
41	Mdm2	Transformed mouse 3T3 cell double minute 2	1.00	-1.2	-1.66	-1.88	-1.16	1.02	1.59	-1.66
42	Men1	Multiple endocrine neoplasia 1	1.00	-1.15	-2.01	-1.92	-1.32	1.06	1.22	-1.93
43	Met	Met proto-oncogene	1.00	1.53	1.39	1.44	-1.12	-1.2	3.43	1.33
44	Mgmt	O-6-methylguanine-DNA methyltransferase	1.00	1.55	1.15	1.16	-1.96	-2.16	-1.46	1.16
45	Mlh1	MutL homolog 1 (E. coli)	1.00	-1.93	-5.03	-2.2	-3.36	-4.69	-13.74	-3.53
46	Mos	Moloney sarcoma oncogene	1.00	1.36	1.24	1.21	1.85	-1.02	2.35	1.34
47	Myb	Myeloblastosis oncogene	1.00	-1.41	1.07	1.48	2.83	1.21	-4.41	1.42
48	Myc	Myelocytomatosis oncogene	1.00	2.46	-4.82	-2.2	5.7	3.39	12.04	1.42
49	Mycn	V-myc myelocytomatosis	1.00	-1.58	1.06	1.37	1.1	-1.07	-2.17	1.09

		viral related oncogene								
50	Nf1	Neurofibromatosis 1	1.00	-2.23	2.51	3.34	-1.13	-2.51	1.39	3.46
51	Nf2	Neurofibromatosis 2	1.00	-1.13	-1.41	2.03	2.6	1.92	1.31	1.13
52	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105	1.00	1.05	1.06	1.17	1.33	1.31	3.41	-1.06
53	Nfkbia	Nfkb1 inhibitor, alpha	1.00	-1.05	1.01	-1.29	-1.01	-1.03	1.26	-1.12
54	Nras	Neuroblastoma ras oncogene	1.00	1.26	-1.13	1.01	1.06	-1.28	-1.72	1.06
55	Pik3c2a	Phosphatidylinositol 3-kinase, C2 domain containing, alpha polypeptide	1.00	1.52	-1.56	-1.79	-1.05	1	-2.16	-1.75
56	Pik3ca	Phosphatidylinositol 3-kinase, catalytic, alpha polypeptide	1.00	1.47	1.55	1.39	-1.03	-1.44	1	1.29
57	Pml	Promyelocytic leukemia	1.00	-1.54	-1.75	-1.2	-2.41	-1.68	-2.6	-1.69
58	Prkca	Protein kinase C, alpha	1.00	-1.29	-1.67	-1.26	-2.2	-1.79	-1.16	-1.85
59	Raf1	V-raf-leukemia viral oncogene 1	1.00	-2.39	-1.97	-1.24	-2.53	-4.99	-2.08	-1.77
60	Rara	Retinoic acid receptor, alpha	1.00	-1.8	-13.55	-5.5	-1.85	-1.6	-6.36	-11.08
61	Rassf1	Ras association (RalGDS/AF-6) domain family member 1	1.00	-1.84	-1.31	-1.27	-1.96	-1.67	-1.05	-1.68
62	Rb1	Retinoblastoma 1	1.00	-1.36	-1.44	1.71	-1.59	-2.66	1.53	-1.25
63	Rel	Reticuloendotheliosis oncogene	1.00	-1.13	-1.01	-1.21	1.31	-1.17	1.14	1.09
64	Ret	Ret proto-oncogene	1.00	-1.2	-1.72	-1.97	-1.36	-1.21	-3.14	-1.46
65	Ros1	Ros1 proto-oncogene	1.00	-1.32	-1.32	-1.21	-2.39	-2.66	-2.85	-1.48
66	Runx1	Runt related transcription factor 1	1.00	1.01	-3.41	-1.93	1.01	1.04	1.83	-3.66
67	Runx3	Runt related transcription factor 3	1.00	-1.04	2.35	2.11	-1.89	-1.67	3.2	1.32
68	S100a4	S100 calcium binding protein A4	1.00	1.51	-1.05	-1.17	1.84	-1.91	4.38	-1.08
69	Serpib5	Serine (or cysteine) peptidase inhibitor, clade B, member 5	1.00	1.69	-2.62	-2.43	2.83	3.16	-4.76	-1.93
70	Sh3pxd2a	SH3 and PX domains 2A	1.00	-4.53	-8.88	-2.16	-2.14	-2.81	-40.79	-8.4
71	Smad4	MAD homolog 4 (Drosophila)	1.00	-2.23	-2.13	-1.54	-1.25	-1.72	1.05	-2.77
72	Src	Rous sarcoma oncogene	1.00	-1.55	-1.57	-1.1	1.06	1.01	-5.86	-1.92
73	Stat3	Signal transducer and activator of transcription 3	1.00	-1.37	1.01	1.33	-1.47	-1.1	1.57	-1.61

74	Stk11	Serine/threonine kinase 11	1.00	-1.26	1.54	1.57	-1.08	-1.27	4.53	1.47
75	Tgfb1	Transforming growth factor, beta 1	1.00	-1.02	-1.12	1.26	1.6	1.26	3.39	1.67
76	Tnf	Tumor necrosis factor	1.00	1.65	2.43	1.87	1.93	-1.18	8.28	2.17
77	Trp53	Transformation related protein 53	1.00	-2.55	1.27	-1.09	-1.21	-2.06	1.84	2.22
78	Trp73	Transformation related protein 73	1.00	-1	2.51	2.33	1.2	1.09	8.69	2.45
79	Tsc1	Tuberous sclerosis 1	1.00	-1.13	-2.79	-2	-1.85	-1.66	1.32	-2.41
80	Vhl	Von Hippel-Lindau tumor suppressor	1.00	-1.27	1.01	-1.19	1.51	1.26	-2.14	1.25
81	Wt1	Wilms tumor 1 homolog	1.00	-1.72	-4.44	-3.63	6.87	4.03	14.52	-6.28
82	Wwox	WW domain-containing oxidoreductase	1.00	-1.59	1.96	1.16	-2	-1.13	-1.13	2.19
83	Xrcc1	X-ray repair complementing defective repair in Chinese hamster cells 1	1.00	-1.58	1.28	1.89	1.35	-1.04	-1.02	1.24
84	Zhx2	Zinc fingers and homeoboxes 2	1.00	-1.78	1.16	1.16	1.13	-1.04	2.53	-1.16