Supplemental Table S1 Genes associated with p53 based on the literature (Set1)

| | | Dataset 1 | | | | | | | | Dataset 2 | | | | | | |
| | | Benign (n=18) | | Melanoma (n=45) | | t Statistic* | p | Adjusted p** | Benign (n=14) | | Melanoma (n=19) | | t Statistic* | p | Adjusted p** | Heatmap Order*** |
AffyID	Gene Name	Mean	StdDev	Mean	StdDev				Mean	StdDev	Mean	StdDev				
200632_s_at	NDRG1	9351	2607.3	3034	1645.3	12.0	0.000	0.000	1822	547.0	1633	1138.3	1.7	0.099	0.160	1
200799_at	HSPA1A	7905	6091.0	7391	4584.4	0.2	0.879	0.914	2149	594.8	1777	1335.8	2.2	0.035	0.069	2
212566_at	MAP4	3901	1910.8	4954	1912.9	-1.9	0.068	0.121	1622	388.3	868	325.6	5.4	0.000	0.000	3
201041_s_at	DUSP1	7254	6239.4	2094	3425.6	6.2	0.000	0.000	2253	1266.3	1126	805.4	3.1	0.004	0.010	4
209189_at	FOS	3648	4803.0	1548	2654.2	1.4	0.167	0.241	1386	1173.8	734	559.3	1.5	0.145	0.219	5
200766_at	CTSD	1030	442.4	2115	1321.2	-4.0	0.001	0.002	176	46.8	466	250.3	-6.1	0.000	0.000	6
202431_s_at	MYC	2137	1068.4	1780	795.7	1.3	0.194	0.275	281	132.0	283	259.1	1.0	0.325	0.422	7
200800_s_at	HSPA1A	2696	608.8	3341	3736.9	-0.3	0.785	0.839	440	126.0	764	887.9	-1.2	0.246	0.331	8
243_g_at	MAP4	2667	1181.8	2883	845.5	-1.0	0.318	0.407	533	72.2	455	153.6	2.3	0.031	0.064	9
200989_at	HIF1A	2230	1349.1	2398	586.5	-1.4	0.166	0.241	972	318.8	842	365.8	1.3	0.192	0.273	10
202284_s_at	CDKN1A	1397	566.4	2791	1266.7	-6.0	0.000	0.000	854	380.6	790	425.4	0.6	0.522	0.594	11
208796_s_at	CCNG1	2304	1001.8	1601	802.0	3.4	0.001	0.004	782	236.4	677	259.5	1.5	0.151	0.223	12
205548_s_at	BTG3	1166	365.1	1240	309.1	-1.0	0.328	0.412	467	203.9	377	223.9	1.5	0.138	0.212	13
213134_x_at	BTG3	1663	685.8	1883	528.6	-1.6	0.125	0.194	506	223.5	382	222.2	1.9	0.063	0.110	14
200836_s_at	MAP4	1195	618.2	1221	274.5	-1.1	0.307	0.399	181	30.6	214	52.5	-1.9	0.070	0.120	15
219628_at	WIG1	824	453.3	1077	349.2	-2.2	0.038	0.074	221	83.6	285	184.0	-0.9	0.374	0.461	16
203010_at	STAT5A	954	309.4	998	194.6	-0.9	0.376	0.451	317	103.9	351	108.2	-0.9	0.364	0.456	17
211040_x_at	GTSE1	1130	679.0	979	293.7	0.3	0.745	0.818	262	34.5	256	43.8	0.5	0.600	0.663	18
209361_s_at	PCBP4	837	210.5	1136	327.1	-3.2	0.002	0.005	169	27.7	234	60.0	-3.6	0.001	0.003	19
212567_s_at	MAP4	1139	369.0	1531	482.4	-2.5	0.015	0.036	432	108.3	323	101.9	2.9	0.007	0.018	20
33850_at	MAP4	870	331.5	1105	364.6	-1.8	0.071	0.124	285	70.7	200	61.5	3.6	0.001	0.003	21
203685_at	BCL2	920	358.5	1043	314.1	-1.5	0.146	0.219	379	231.3	236	155.7	2.5	0.017	0.037	22
209295_at	TNFRSF10B	562	162.2	1132	418.7	-5.5	0.000	0.000	148	51.0	200	144.8	-1.0	0.344	0.439	23
202705_at	CCNB2	324	138.5	1090	513.8	-8.1	0.000	0.000	162	22.1	332	225.0	-4.0	0.001	0.002	24
221577_x_at	GDF15	190	159.8	5223	2960.0	-19.0	0.000	0.000	42	33.8	903	852.8	-6.8	0.000	0.000	25
33322_i_at	SFN	56422	29438	6363	11847	10.0	0.000	0.000	10843	3354.9	1583	3316.6	10.2	0.000	0.000	26
33323_r_at	SFN	39979	30742	4221	8366.0	9.6	0.000	0.000	6241	1934.4	904	1961.0	10.1	0.000	0.000	27
200835_s_at	MAP4	254	168.7	202	157.0	1.2	0.229	0.308	84	9.3	99	15.5	-3.3	0.002	0.006	28
206742_at	FIGF	183	102.3	139	65.7	0.9	0.355	0.440	73	19.9	61	11.3	2.1	0.049	0.090	29
207005_s_at	BCL2	136	55.2	121	68.9	0.8	0.418	0.494	82	11.4	94	22.2	-1.8	0.078	0.132	30
207004_at	BCL2	138	99.3	188	88.1	-2.3	0.031	0.064	114	12.9	114	19.9	0.1	0.920	0.933	31
211554_s_at	APAF1	162	84.4	161	79.1	0.0	0.981	0.981	98	13.4	116	15.7	-3.7	0.001	0.002	32
209294_x_at	TNFRSF10B	206	143.3	177	97.4	0.3	0.738	0.818	144	21.3	149	21.9	-0.7	0.509	0.593	33
210405_x_at	TNFRSF10B	186	109.6	172	120.4	0.5	0.594	0.681	96	19.7	109	18.3	-2.2	0.036	0.069	34
207826_s_at	ID3	367	412.8	133	134.6	2.9	0.007	0.019	120	35.2	113	84.6	1.3	0.203	0.283	35

AffyID	Gene Name	Dataset 1							Dataset 2							Heatmap Order***
		Benign (n=18)		Melanoma (n=45)		t Statistic*	p	Adjusted p**	Benign (n=14)		Melanoma (n=19)		t Statistic*	p	Adjusted p**	
		Mean	StdDev	Mean	StdDev				Mean	StdDev	Mean	StdDev				
214511_x_at	FCGR1A	170	156.1	254	204.2	-1.9	0.066	0.119	57	9.8	161	82.7	-6.9	0.000	0.000	36
201108_s_at	THBS1	467	989.9	370	266.2	-1.1	0.288	0.381	105	22.7	117	33.9	-1.1	0.289	0.382	37
201292_at	TOP2A	293	115.0	767	357.6	-7.6	0.000	0.000	53	18.2	140	103.2	-4.7	0.000	0.000	38
210559_s_at	CDC2	297	107.8	603	218.0	-6.7	0.000	0.000	52	8.0	136	100.2	-5.2	0.000	0.000	39
214710_s_at	CCNB1	258	69.6	567	186.9	-7.8	0.000	0.000	49	11.0	166	157.6	-5.4	0.000	0.000	40
203213_at	CDC2	192	148.4	564	306.9	-7.1	0.000	0.000	58	11.9	91	57.6	-2.8	0.009	0.019	41
203214_x_at	CDC2	232	80.6	428	138.2	-6.0	0.000	0.000	102	21.4	156	57.7	-3.8	0.001	0.002	42
203135_at	TBP	517	243.9	577	158.6	-1.7	0.095	0.154	102	13.7	91	23.6	2.0	0.061	0.109	43
216347_s_at	PPP1R13B	648	193.6	378	76.2	6.4	0.000	0.000	167	31.4	96	19.7	8.2	0.000	0.000	44
207813_s_at	FDXR	385	161.4	436	168.9	-1.2	0.220	0.306	91	17.7	105	43.6	-0.9	0.384	0.465	45
211692_s_at	BBC3	524	171.4	682	264.7	-2.2	0.032	0.064	137	22.9	166	43.2	-2.1	0.044	0.083	46
202672_s_at	ATF3	678	525.9	582	501.9	0.9	0.374	0.451	226	225.1	193	151.7	0.2	0.870	0.895	47
201291_s_at	TOP2A	187	89.2	731	469.4	-7.2	0.000	0.000	25	6.1	107	78.4	-7.1	0.000	0.000	48
208478_s_at	BAX	189	93.0	388	133.8	-4.0	0.001	0.002	34	6.0	60	19.0	-6.0	0.000	0.000	49
211833_s_at	BAX	187	104.6	499	184.3	-4.7	0.000	0.001	28	2.7	70	27.1	-8.8	0.000	0.000	50
204315_s_at	GTSE1	161	79.5	275	126.8	-3.6	0.001	0.002	41	2.8	59	19.9	-4.8	0.000	0.000	51
204318_s_at	GTSE1	143	97.5	328	133.7	-4.7	0.000	0.000	42	3.3	72	32.6	-5.2	0.000	0.000	52
204566_at	PPM1D	247	72.2	266	103.2	-0.5	0.592	0.681	42	11.1	39	11.2	0.9	0.396	0.473	53
215551_at	ESR1	194	69.1	234	78.5	-1.9	0.061	0.116	29	2.3	29	2.2	-0.5	0.607	---	54
208000_at	GML	282	126.1	275	83.3	-0.2	0.841	0.887	55	11.3	57	8.2	-0.6	0.564	0.632	55
205225_at	ESR1	320	173.6	212	84.8	3.2	0.002	0.006	98	27.7	53	8.8	6.9	0.000	0.000	56
201109_s_at	THBS1	331	896.3	187	237.8	0.3	0.759	0.822	25	2.2	34	18.6	-3.1	0.006	0.015	57
201110_s_at	THBS1	161	393.3	197	219.0	-2.2	0.031	0.064	17	3.2	27	18.9	-3.1	0.005	---	58
203684_s_at	BCL2	57	58.6	45	26.4	0.1	0.941	---	81	13.4	82	11.5	-0.2	0.846	0.882	59
211235_s_at	ESR1	67	49.6	38	25.2	3.5	0.001	---	62	9.0	73	12.7	-2.8	0.008	0.019	60
221936_x_at	MRPL41	44	40.6	33	11.6	0.8	0.443	---	107	15.1	110	18.1	-0.5	0.650	0.707	61
205385_at	MDM2	48	26.7	54	34.5	-0.6	0.575	---	48	6.7	47	8.1	0.7	0.513	0.593	62
219273_at	CCNK	37	12.1	41	18.1	-0.8	0.416	---	41	3.2	42	5.8	-0.5	0.631	---	63
206083_at	BAI1	51	28.2	89	55.5	-2.6	0.011	0.027	65	7.8	65	17.7	0.4	0.674	0.723	64
211233_x_at	ESR1	71	63.5	78	41.6	-1.5	0.146	0.219	91	16.6	91	16.1	0.0	0.992	0.992	65
211234_x_at	ESR1	52	20.0	61	26.5	-1.5	0.142	---	65	8.9	70	9.6	-1.5	0.157	0.228	66
216914_at	CDC25C	67	49.7	85	51.5	-1.9	0.063	0.118	49	9.5	52	7.4	-1.2	0.240	0.328	67
204317_at	GTSE1	66	46.5	147	87.0	-4.0	0.000	0.001	30	1.7	40	10.6	-4.1	0.000	0.002	68
217010_s_at	CDC25C	90	63.2	110	57.9	-1.6	0.122	0.194	36	6.7	39	4.4	-1.6	0.115	---	69
204859_s_at	APAF1	175	136.6	145	45.0	0.1	0.894	0.917	28	3.3	24	2.9	3.8	0.001	---	70
205167_s_at	CDC25C	151	63.1	186	54.3	-2.4	0.019	0.043	33	2.1	44	19.0	-3.5	0.002	0.006	71
215552_s_at	ESR1	146	63.9	125	51.4	0.5	0.614	0.694	34	2.8	36	3.7	-1.3	0.194	---	72

| | | Dataset 1 | | | | | | | Dataset 2 | | | | | | | Heatmap |
| | | Benign (n=18) | | Melanoma (n=45) | | t Statistic* | p | Adjusted p** | Benign (n=14) | | Melanoma (n=19) | | t Statistic* | p | Adjusted p** | Order*** |
AffyID	Gene Name	Mean	StdDev	Mean	StdDev				Mean	StdDev	Mean	StdDev				
209993_at	ABCB1	142	85.4	128	52.1	0.0	0.974	0.981	28	3.3	27	4.9	0.6	0.554	---	73
211553_x_at	APAF1	104	56.4	122	65.5	-1.2	0.228	0.308	27	2.4	26	1.2	0.7	0.466	---	74
215425_at	BTG3	202	84.0	103	55.0	5.0	0.000	0.000	31	5.8	22	1.5	5.9	0.000	---	75
217373_x_at	MDM2	184	79.6	140	71.3	1.8	0.074	0.125	22	2.0	25	3.9	-3.0	0.006	---	76
215942_s_at	GTSE1	117	58.5	180	101.1	-2.4	0.018	0.041	37	3.6	46	10.7	-3.3	0.003	0.008	77
214732_at	SP1	169	104.6	115	64.0	1.7	0.085	0.142	38	4.6	41	4.9	-1.5	0.133	---	78
209994_s_at	ABCB1	96	100.1	195	82.4	-4.0	0.001	0.002	41	11.0	42	20.7	0.3	0.770	0.814	79
201044_x_at	DUSP1	250	484.4	41	111.9	2.4	0.025	0.056	59	16.4	69	21.1	-1.7	0.099	0.160	80
206859_s_at	PAEP	22	8.6	225	1316.6	-2.3	0.027	0.058	33	2.7	371	733.0	-2.6	0.016	0.036	81
201107_s_at	THBS1	46	107.5	20	7.7	0.6	0.537	---	34	2.1	38	5.1	-2.9	0.007	---	82
221576_at	GDF15	11	6.7	18	14.2	-2.9	0.006	---	28	1.4	34	6.3	-5.1	0.000	0.000	83
211832_s_at	MDM2	26	26.8	27	19.7	-0.4	0.665	---	28	1.6	29	1.5	-2.6	0.014	---	84
208461_at	HIC1	24	28.3	32	42.6	-1.4	0.161	---	23	2.2	26	6.3	-1.9	0.068	---	85
215443_at	TSHR	36	51.6	40	52.7	-0.9	0.365	---	29	2.9	31	2.5	-1.6	0.127	---	86
210055_at	TSHR	42	51.0	34	38.6	0.3	0.751	---	23	2.6	23	1.7	0.6	0.585	---	87
214146_s_at	PPBP	126	363.6	42	33.2	0.3	0.776	---	26	2.3	35	23.5	-1.6	0.118	0.186	88
205386_s_at	MDM2	81	51.0	68	49.4	0.9	0.365	---	15	1.3	15	1.0	0.0	0.988	---	89
220402_at	P53AIP1	151	67.9	66	37.7	4.3	0.000	0.000	28	3.2	22	1.5	7.2	0.000	---	90
207538_at	IL4	53	31.1	51	39.1	1.2	0.241	---	20	1.0	21	1.6	-0.9	0.393	---	91
207849_at	IL2	49	53.5	45	37.7	-0.6	0.557	---	16	0.7	16	0.9	-0.5	0.597	---	92
211627_x_at	ESR1	46	45.0	40	39.7	1.1	0.270	---	14	0.6	15	1.3	-1.9	0.065	---	93
207539_s_at	IL4	26	29.2	17	19.6	1.9	0.068	---	22	1.5	21	1.3	0.6	0.539	---	94
215442_s_at	TSHR	21	21.7	18	20.3	0.6	0.528	---	17	0.7	18	0.9	-2.3	0.030	---	95
220403_s_at	P53AIP1	406	329.2	37	37.0	10.0	0.000	0.000	81	26.7	33	4.1	9.6	0.000	0.000	96
209260_at	SFN	6640	3028.3	1089	3162.9	8.6	0.000	0.000	762	415.6	182	313.8	6.6	0.000	0.000	97

* A natural log transformation was done prior to the calculation of the test statistic.

** Genes that have "---" for the adjusted p-value were removed prior to the adjustment. For Dataset 1, removed genes that had a range less than 75 or mean of less than 75 for all samples. For Dataset 2, the removed genes that had a range of less than 30 or mean of less than 30 for all samples.

*** From top to bottom of heat map