

**Table S4.** Gene expression before and after gamma irradiation – wt p53 down-regulated genes.

GeneName	ID	Description	Irradiation, 12 Gy												HCT11s				DLD-1				RKO				SW48			
			No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes		
A_S_P_M	NM_016426	Homo sapiens asp (abnormal spindle)-like, microscopally associated (Drosophila)	1.00	0.78	0.85	0.89	1.49	2.62	0.68	1.27	0.95	2.02	1.00	0.19	1.04	1.17	1.00	1.07	0.87	1.22	1.58	2.69	1.00	0.25	0.61	0.88	0.71	0.92		
AURKB	NM_002497	Homo sapiens aurora kinase B	1.00	0.44	1.14	0.87	1.19	1.29	0.61	0.59	0.84	0.92	1.00	0.25	0.96	0.72	1.00	0.47	0.82	0.67	1.80	1.13	1.00	0.19	0.48	0.36	0.61	0.63		
B_I_C_D_5	NM_152524	Homo sapiens baculoviral IAP repeat-containing 5 (sunvvin), transcript variant 3	1.00	0.62	0.82	0.78	1.09	1.57	0.76	1.04	1.05	1.50	1.00	0.21	0.72	0.65	1.00	1.07	0.96	0.96	1.52	2.44	1.00	0.22	0.61	0.42	0.63	0.60		
BRN1	NM_022346	Homo sapiens barren homolog 1 (Drosophila)	1.00	0.57	0.65	0.69	1.26	1.87	0.74	0.88	1.03	1.51	1.00	0.22	1.03	0.97	1.00	0.94	0.70	0.80	1.65	1.95	1.00	0.31	0.70	0.60	0.93	0.96		
C_17orf141	NM_003318	Homo sapiens chromosome 17 open reading frame 41	1.00	0.83	0.88	1.09	1.44	1.73	1.02	1.00	1.60	1.89	1.00	0.41	0.83	1.04	1.00	0.83	1.29	1.22	1.47	1.74	1.00	0.46	0.87	0.77	1.01	1.06		
CASC5	NM_008545	Homo sapiens cancer susceptibility candidate 5, transcript variant 1	1.00	0.65	0.47	0.48	1.47	2.07	0.55	0.77	1.20	1.65	1.00	0.06	0.40	0.60	1.00	0.59	1.13	2.02	1.32	1.94	1.00	0.34	0.75	0.65	0.82	0.86		
C_CNA2	NM_004217	Homo sapiens cyclin A2	1.00	0.51	0.81	0.71	1.33	2.46	0.65	0.84	0.88	1.51	1.00	0.21	0.96	0.94	1.00	0.72	0.54	0.52	1.45	1.47	1.00	0.26	0.65	0.54	0.85	0.80		
CCNB2	NM_030932	Homo sapiens cyclin B2	1.00	0.66	1.08	0.93	1.52	2.33	0.69	1.22	1.04	1.65	1.00	0.41	1.02	0.91	1.00	1.00	0.90	1.06	1.46	2.21	1.00	0.26	0.53	0.43	0.70	0.65		
C_D_C_2	NM_012484	Homo sapiens cell division cycle 2, G1 to S and G2 to M, transcript variant 1	1.00	0.83	1.11	1.11	1.40	2.75	0.79	1.33	0.99	1.78	1.00	0.34	0.90	1.04	1.00	1.20	1.13	1.21	1.59	2.45	1.00	0.41	0.74	0.73	1.01	1.02		
CDCC2C	NM_004701	Homo sapiens cell division cycle 25C, transcript variant 1	1.00	0.73	1.21	1.06	1.66	3.03	0.74	1.57	1.23	2.24	1.00	0.24	1.13	1.06	1.00	1.07	0.99	1.51	1.99	2.98	1.00	0.28	0.46	0.51	0.60	0.64		
C_D_C_A_5	NM_016343	Homo sapiens cell division cycle associated 5	1.00	0.49	0.94	0.93	1.28	1.82	0.80	0.83	1.03	1.35	1.00	0.21	0.71	0.82	1.00	1.98	2.46	2.35	3.71	4.43	1.00	0.33	0.73	0.61	0.78	0.86		
CDCA8	NM_138419	Homo sapiens cell division cycle associated 8	1.00	0.59	1.16	1.02	1.42	2.09	0.77	1.03	1.02	1.61	1.00	0.15	0.65	0.54	1.00	1.01	0.95	1.04	1.57	2.03	1.00	0.24	0.57	0.43	0.60	0.64		
C_E_N_P_A	NM_015341	Homo sapiens centromere protein A, transcript variant 1	1.00	0.37	0.60	0.44	1.30	1.73	0.43	0.57	0.81	1.18	1.00	0.13	1.20	1.27	1.00	0.87	0.62	0.63	2.21	2.53	1.00	0.18	0.35	0.30	0.51	0.56		
CENPE	NM_007418	Homo sapiens centromeres protein E, 310kDa	1.00	0.63	0.65	0.68	1.55	2.19	0.68	1.00	1.05	1.57	1.00	0.24	0.72	0.66	1.00	0.81	0.63	0.75	1.72	1.88	1.00	0.37	0.60	0.54	0.79	0.77		
C_E_N_P_F	NM_017779	Homo sapiens centromere protein F, 350/400kDa (mitotin)	1.00	0.60	0.80	0.69	1.40	2.14	0.59	0.96	1.20	1.98	1.00	0.07	1.19	1.30	1.00	0.69	0.84	1.05	1.35	1.62	1.00	0.24	0.56	0.42	0.62	0.73		
CIT	NM_012415	Homo sapiens citron (Rho-interacting, serine/threonine kinase 21)	1.00	0.84	1.25	1.10	1.88	2.32	0.99	1.51	1.54	2.16	1.00	0.42	1.10	1.07	1.00	0.88	0.84	1.01	1.44	2.40	1.00	0.30	0.58	0.51	0.68	0.78		
C_K_A_P_2_L	NM_024857	Homo sapiens cytoskeleton associated protein 2-like	1.00	0.52	0.72	0.62	1.54	2.40	0.66	0.91	1.15	1.69	1.00	0.12	0.78	0.71	1.00	0.64	1.01	1.45	1.48	1.72	1.00	0.30	0.60	0.47	0.77	0.64		
DEPDC1	NM_007174	Homo sapiens DEP domain containing 1	1.00	0.51	0.61	0.48	1.17	1.81	0.90	1.04	1.10	1.66	1.00	0.26	0.91	0.87	1.00	1.17	0.64	0.81	1.35	2.49	1.00	0.26	0.53	0.46	0.97	0.80		
D_I_A_P_H_3	NM_006101	Homo sapiens diaphanous homolog 3 (Drosophila), transcript variant 2	1.00	1.00	1.46	1.93	1.78	3.06	0.62	1.30	1.21	2.26	1.00	0.26	0.37	0.60	1.00	0.86	3.32	6.13	2.04	2.81	1.00	0.37	0.67	0.60	1.12	0.87		
FAM54A	NM_170589	Homo sapiens family with sequence similarity 54, member A	1.00	0.63	0.66	0.78	1.32	2.80	0.62	0.85	0.91	1.60	1.00	0.21	0.85	0.97	1.00	1.13	0.87	1.09	1.63	2.41	1.00	0.38	0.66	0.74	1.04	1.28		
F_A_H_T_2_A	NM_001237	Homo sapiens family with sequence similarity 72, member A	1.00	0.55	1.29	1.05	1.62	2.90	0.68	1.04	0.92	1.31	1.00	0.33	1.32	1.16	1.00	0.69	0.66	1.06	1.74	2.48	1.00	0.34	0.59	0.51	0.96	0.85		
FLJ39660	NM_001067	Homo sapiens hypothetical protein FLJ39660	1.00	0.95	0.83	1.08	1.74	2.24	0.90	1.35	1.32	2.22	1.00	0.18	0.61	0.83	1.00	0.75	1.60	1.72	1.60	1.91	1.00	0.39	0.73	0.87	0.63	0.89		
S_T_S_E_1	BC062449	Homo sapiens G-2 and S-phase expressed 1	1.00	0.50	0.86	0.62	1.25	1.67	0.73	0.90	1.46	2.09	1.00	0.14	0.84	0.82	1.00	0.90	1.42	1.49	2.31	2.08	1.00	0.20	0.42	0.33	0.49	0.55		
HCAP-G	NM_021813	Homo sapiens chromosome condensation protein G	1.00	0.54	0.97	0.79	1.39	1.99	0.58	0.70	0.87	1.16	1.00	0.18	0.51	0.50	1.00	0.74	0.80	0.72	1.64	1.59	1.00	0.30	0.62	0.51	0.75	0.66		
H_M_M_R	NM_001790	Homo sapiens hyaluronan-mediated motility receptor (RHAMM), transcript variant 1	1.00	0.83	0.95	0.97	1.55	3.46	0.71	1.67	1.05	2.49	1.00	0.25	0.67	0.78	1.00	1.42	0.82	1.52	1.49	2.87	1.00	0.32	0.45	0.55	0.75	0.92		
KIF18A	NM_031217	Homo sapiens kinesin family member 18A	1.00	0.58	0.70	0.70	1.14	1.91	1.20	1.31	2.06	2.45	1.00	0.50	1.19	1.40	1.00	1.16	1.00	1.35	2.62	4.19	1.00	0.31	0.66	0.65	0.78	1.06		
K_I_F_2_D_A	NM_018101	Homo sapiens kinesin family member 20A	1.00	0.54	0.69	0.44	1.24	2.11	0.66	1.02	1.12	2.31	1.00	0.15	1.03	0.70	1.00	0.83	0.75	0.77	1.92	2.47	1.00	0.21	0.43	0.35	0.54	0.59		
KIF2C	NM_152515	Homo sapiens kinesin family member 2C	1.00	0.69	1.11	0.89	1.48	2.10	0.62	0.93	0.84	1.56	1.00	0.27	1.00	0.91	1.00	0.88	1.00	1.94	1.93	2.07	1.00	0.27	0.51	0.46	0.60	0.77		
K_N_T_C_2	NM_018136	Homo sapiens kinetochore associated 2	1.00	0.39	0.96	0.85	1.50	1.97	0.61	0.80	0.87	1.38	1.00	0.15	0.86	0.76	1.00	0.81	0.77	0.76	1.84	1.78	1.00	0.23	0.55	0.43	0.70	0.66		
NEK2	NM_00102271	Homo sapiens NIMA (never in mitosis gene a)-related kinase 2	1.00	0.68	1.33	1.19	1.69	3.26	0.74	1.45	1.26	2.62	1.00	0.26	1.13	1.04	1.00	1.12	1.30	1.74	1.71	2.77	1.00	0.20	0.46	0.39	0.74	0.68		
P_L_K_1	NM_001809	Homo sapiens polo-like kinase 1 (Drosophila)	1.00	0.52	0.69	0.60	1.45	1.93	0.65	0.91	0.94	1.41	1.00	0.20	0.80	0.56	1.00	0.95	0.66	0.91	1.65	2.05	1.00	0.23	0.50	0.45	0.68	0.62		
RADS4B	NM_005733	Homo sapiens RADS4 homolog B (S)	1.00	0.76	0.73	0.91	1.19	2.46	0.95	0.99	1.17	1.67	1.00	0.53	1.01	1.14	1.00	1.18	1.29	1.28	2.02	2.75	1.00	0.53	0.78	0.75	1.51	1.48		
S_G_O_L_2	NM_001786	Homo sapiens shugoshin-like 2 (S. pombe)	1.00	0.70	0.85	0.72	1.53	2.89	0.72	1.18	1.11	2.02	1.00	0.28	0.99	1.00	1.00	1.26	0.92	1.27	1.53	2.68	1.00	0.32	0.63	0.59	0.85	0.88		
TOP2A	NM_005030	Homo sapiens topoisomerase (DNA) II alpha 170kDa	1.00	0.78	0.80	0.85	1.53	2.28	0.74	1.28	1.19	1.86	1.00	0.38	0.82	1.03	1.00	0.93	0.75	1.02	1.25	2.00	1.00	0.37	0.63	0.76	0.78	1.01		
TTK	NM_080668	Homo sapiens TTK protein kinase	1.00	0.57	0.79	0.68	1.32	2.29	0.68	1.00	1.04	1.79	1.00	0.38	1.20	1.12	1.00	0.93	0.92	0.87	1.59	2.07	1.00	0.32	0.70	0.61	0.94	0.92		

Only genes listed in Table 2 are included.