

Supplemental Table 1. Variants detected in the four human embryonic stem cell lines that were not related to ionizing radiation exposure

Cell line	Position	Gene	Reference	Variant	Frequency on 314™ chip			Frequency on 318™ chip		
					Control	0.2 Gy	1 Gy	Control	0.2 Gy	1 Gy
H1	chr4:1807894	FGFR3	G	A	100%	100%	100%	100%	100%	100%
	chr4:55141055	PDGFRA	A	G	100%	99.8%	100%	100%	100%	100%
	chr4:55593464	KIT	A	C	47.3%	47.3%	50.4%	46.6%	48%	47.4%
	chr5:112175770	APC	G	A	99.8%	100%	100%	99.9%	100%	100%
	chr7:55249063	EGFR	G	A	56.1%	48.7%	53.2%	52.8%	51%	51.3%
	chr10:43613843	RET	G	T	100%	100%	98.6%	100%	100%	100%
	chr22:24176287	SMARCB1	G	A	52.7%	50.3%	46.8%	52.8%	50.1%	48.8%
H7	chr4:1807894	FGFR3	G	A	100%	100%	99.7%	100%	100%	100%

	chr4:55141055	PDGFRA	A	G	86%	96.5%	69.1%	100%	100%	100%
	chr4:55593481	KIT	A	G	100%	100%	100%	100%	100%	100%
	chr4:55946171	KDR	G	A	51.9%	46.0%	51.6%	52.7%	49.7%	49.7%
	chr4:55972974	KDR	T	A	50.7%	52.2%	44.0%	48.4%	49.3%	50.6%
	chr5:112175770	APC	G	A	100%	100%	99.1%	100%	100%	100%
	chr7:55249063	EGFR	G	A	100%	100%	100%	100%	100%	100%
	chr10:43613843	RET	G	T	51.4%	46.9%	53.6%	53.9%	51.8%	52.4%
	chr10:43615633	RET	C	G	45.1%	49.6%	50.3%	49.3%	47.9%	51.6%
	chr19:1220321	STK11	T	C	54.1%	50.4%	50.4%	52%	54.7%	51.3%
	chr22:24176287	SMARCB1	G	A	51.6%	52.2%	45.6%	50.4%	51.6%	49.1%
H9	chr2:212812097	ERBB4	T	C	66.9%	61.0%	62.4%	66.2%	60.1%	59.6%
	chr3:178917005	PIK3CA	A	G	99.8%	100%	97.7%	98.9%	100%	98.7%

	chr4:1807894	FGFR3	G	A	100%	100%	99.7%	100%	100%	100%
	chr4:55141055	PDGFRA	A	G	99.8%	100%	98.3%	100%	100%	100%
	chr5:112175770	APC	G	A	98.9%	99.1%	98.9%	100%	100%	100%
	chr7:55249063	EGFR	G	A	52.7%	46.2%	54.8%	50.4%	51.1%	49.9%
	chr10:43613843	RET	G	T	100%	100%	100%	100%	100%	100%
	chr19:1220321	STK11	T	C	49.6%	54.5%	43.7%	53.4%	56.1%	49.4%
H14	chr2:29432625	ALK	C	A	21%	32.6%	37.6%	27.3%	32.2%	38.3%
	chr4:1807894	FGFR3	G	A	100%	99.6%	100%	100%	100%	100%
	chr4:55141055	PDGFRA	A	G	100%	100%	99.8%	100%	100%	100%
	chr4:55593481	KIT	A	G	100%	100%	100%	100%	100%	100%
	chr4:55946171	KDR	G	A	49.9%	47%	49.9%	48.6%	50.8%	50.7%
	chr4:55972974	KDR	T	A	51.6%	50.8%	50.8%	50.6%	50.6%	51.6%

	chr5:112175770	APC	G	A	100%	100%	100%	100%	100%	100%
	chr7:55249049	EGFR	A	G	100%	100%	100%	100%	100%	100%
	chr19:1220321	STK11	T	C	100%	100%	100%	100%	100%	100%
	chr22:24176287	SMARCB1	G	A	52.6%	48.9%	48.0%	51%	50.2%	48%