

Supplemental Table 1. Neurosphere formation and tumorigenicity is enriched within the CD133+ tumour cell populations derived from human primary gliomas and glioma xenografts.

GBM samples or Glioma xenografts	Cells	% cells forming Neurospheres	Minimum number of cells for tumour initiation (8 weeks)
T3565 Primary Glioma	CD133+	81 ± 6 %	500
	CD133-	0 %	No tumours detected at 2 x 10 ⁶
	Total	2.6 ± 0.7 %	20,000
T3691 Primary Glioma	CD133+	76 ± 8 %	1,000
	CD133-	0 %	No tumours detected at 2 x 10 ⁶
	Total	3.4 ± 0.6 %	30,000
T3750 Primary Glioma	CD133+	83 ± 5 %	1,000
	CD133-	0 %	No tumours detected at 2 x 10 ⁶
	Total	2.4 ± 0.9 %	40,000
D456MG	CD133+	89 ± 5 %	300
	CD133-	3 ± 1.5 %	Occ. small tumours at 2 x 10 ⁶
	Total	3.4 ± 0.6 %	10,000
D317	CD133+	86 ± 6 %	500
	CD133-	0 %	No tumours detected at 2 x 10 ⁶
	Total	3.8 ± 0.5 %	15,000
D54MG	CD133+	81 ± 7 %	500
	CD133-	0 %	No tumours detected at 2 x 10 ⁶
	Total	2.9 ± 0.6 %	20,000

Supplemental Table 2. *In Vivo* Limiting Dilution Tumorigenic Assays of Untreated and Irradiated Cells

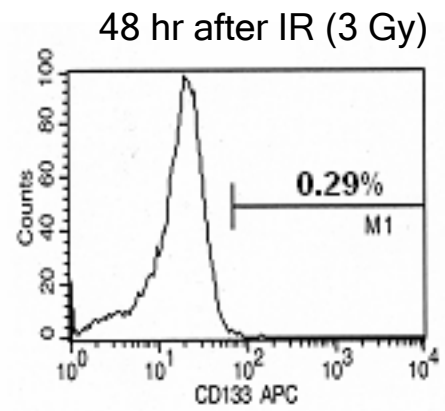
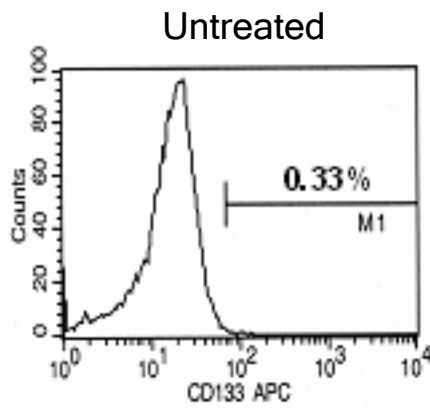
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GBM Samples	Cell Type	Minimum number of cells for tumour initiation (8 weeks)		
		Untreated	2 Gy IR (Injected 48 hr after IR)	5 Gy IR (Injected 48 hr after IR)
T3691	CD133+	1000	1000	5000
	CD133-	No tumours detected at 10 ⁶	No tumours detected at 10 ⁶	No tumours detected at 10 ⁶
T3565	CD133+	500	1000	5000
	CD133-	No tumours detected at 10 ⁶	No tumours detected at 10 ⁶	No tumours detected at 10 ⁶

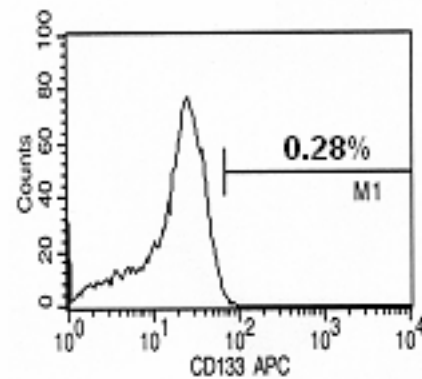
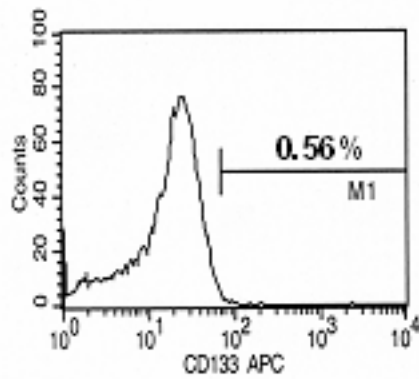
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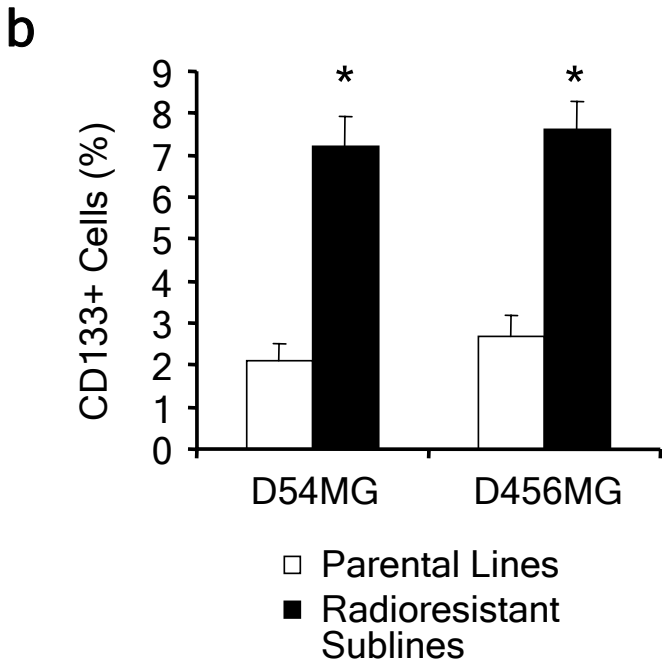
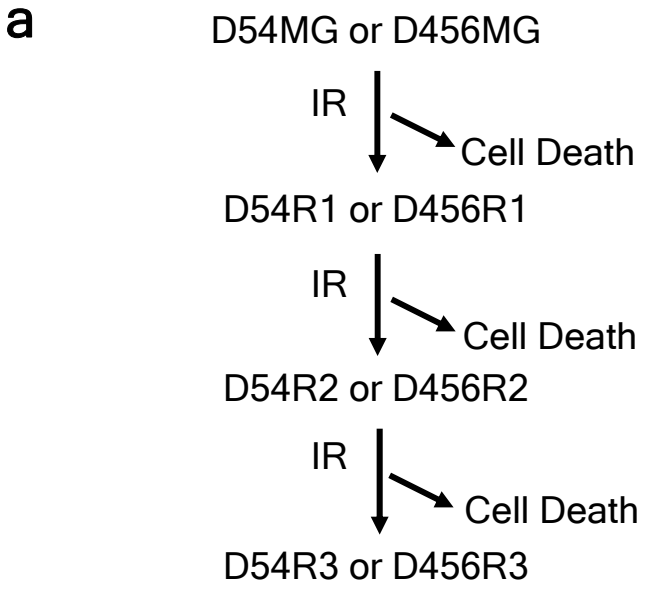
GBM Samples And Cell Type	Minimum number of cells for tumour initiation (8 weeks)				
	Untreated	24 hr after 2 Gy IR	48 hr after 2 Gy IR	72 hr after 2 Gy IR	96 hr after 2 Gy IR
T3691 CD133+	1000	2000	1000	1000	1000
T3565 CD133+	500	2000	1000	1000	1000

CD133- cells
from D456MG

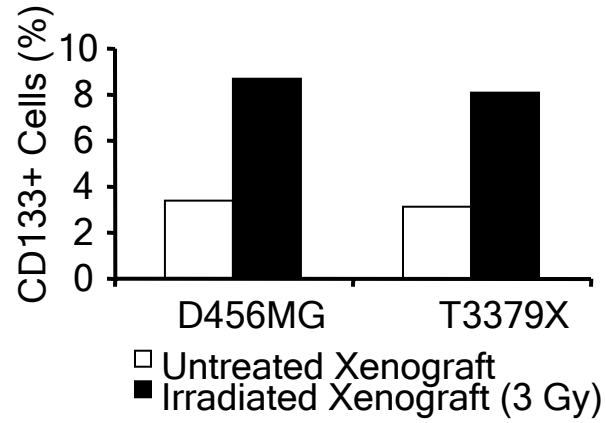


CD133- cells
from T3607
GBM

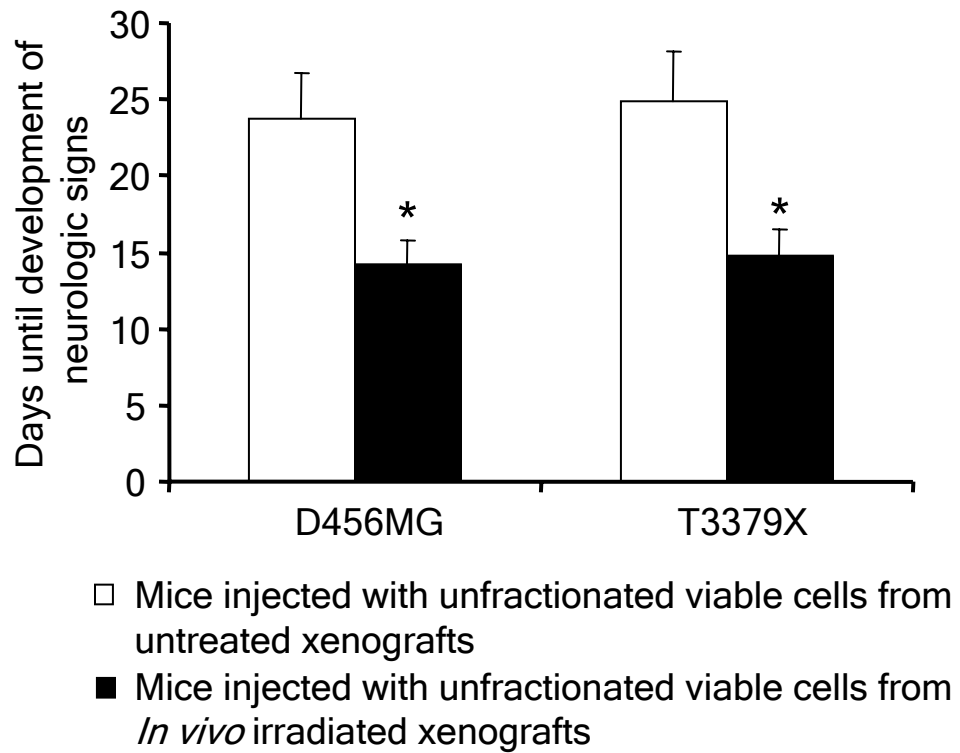
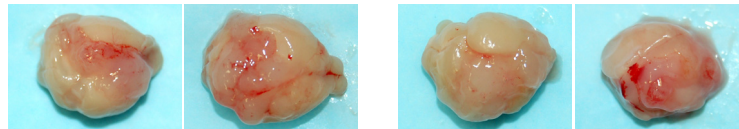




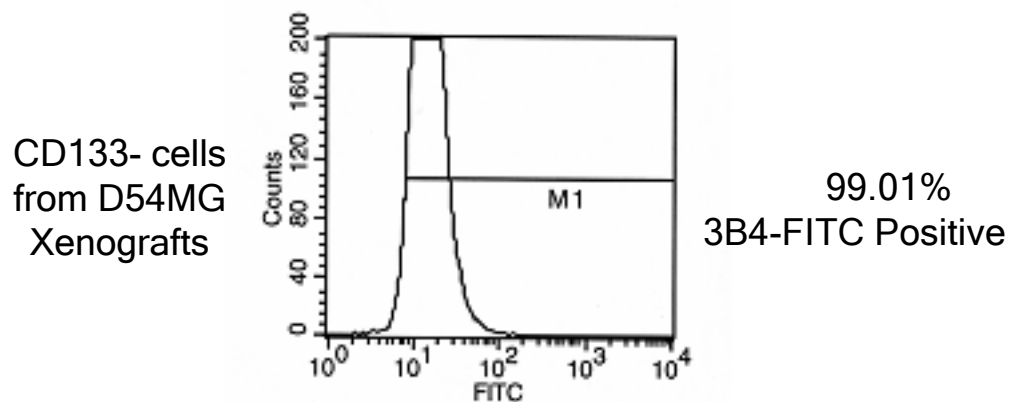
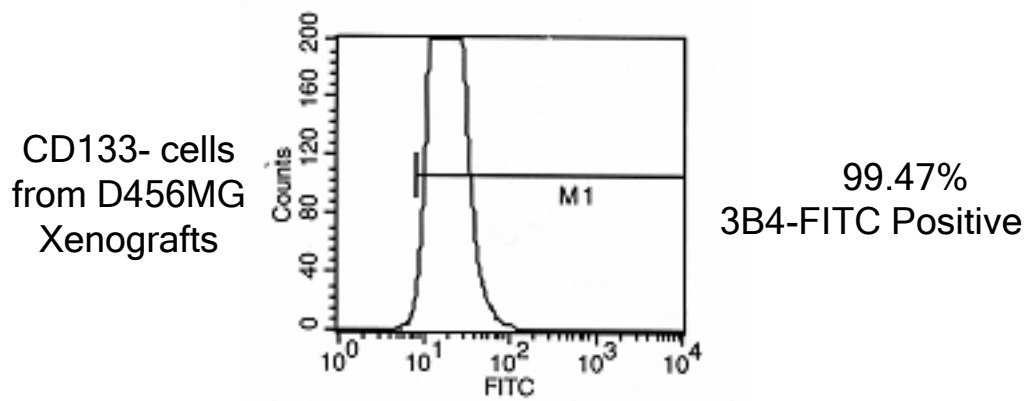
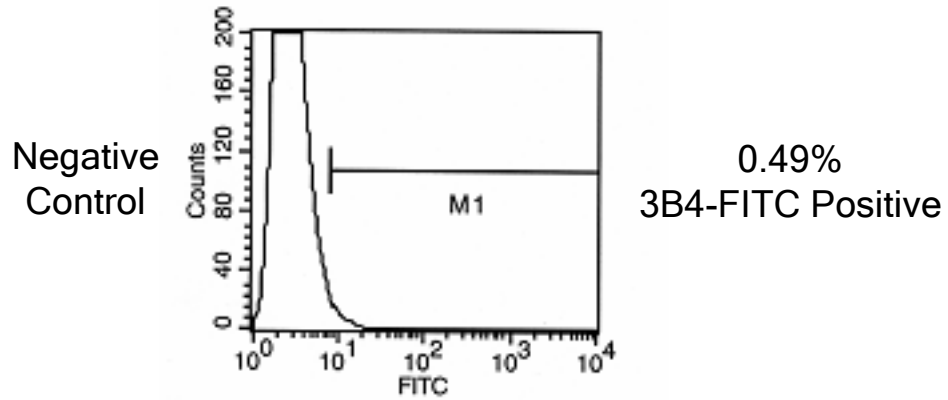
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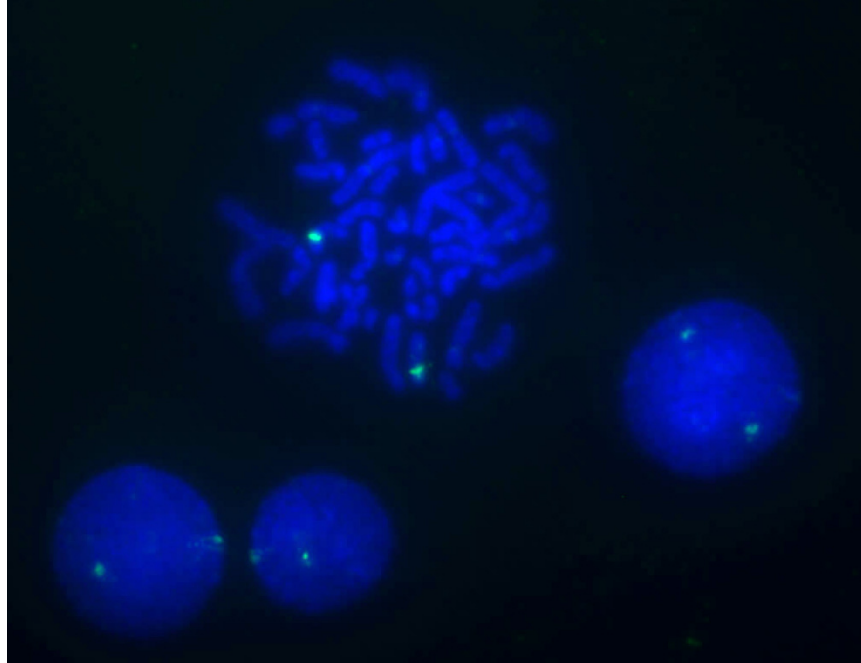
3B4-FITC Staining specific for human cells confirmed
human origin of tumour cells isolated from glioma xenografts



FISH: Chromosome 10 Centromere Probe (Green)

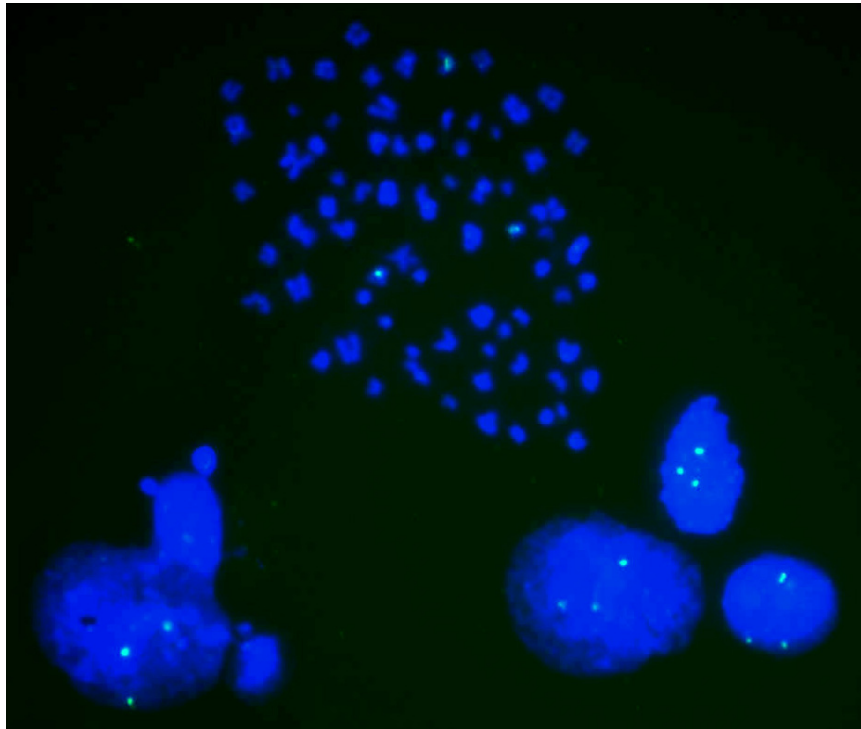
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Control
Normal cells



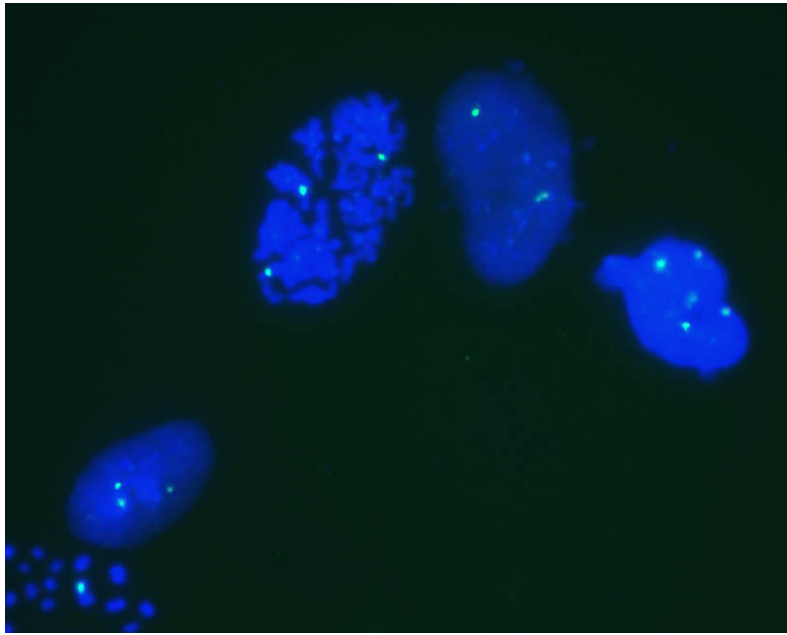
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T3359 Glioma
Tumour cells



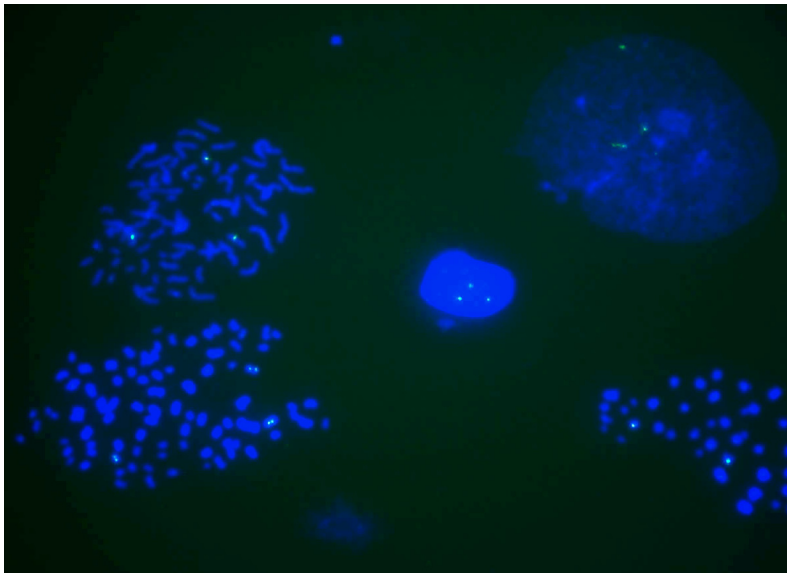
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T3359 CD133-
glioma cells



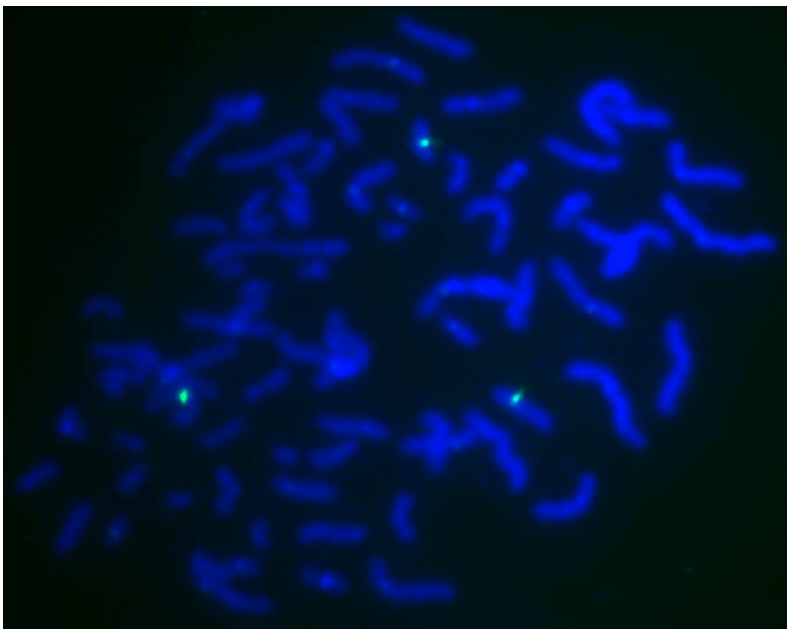
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T3359 CD133-
glioma cells

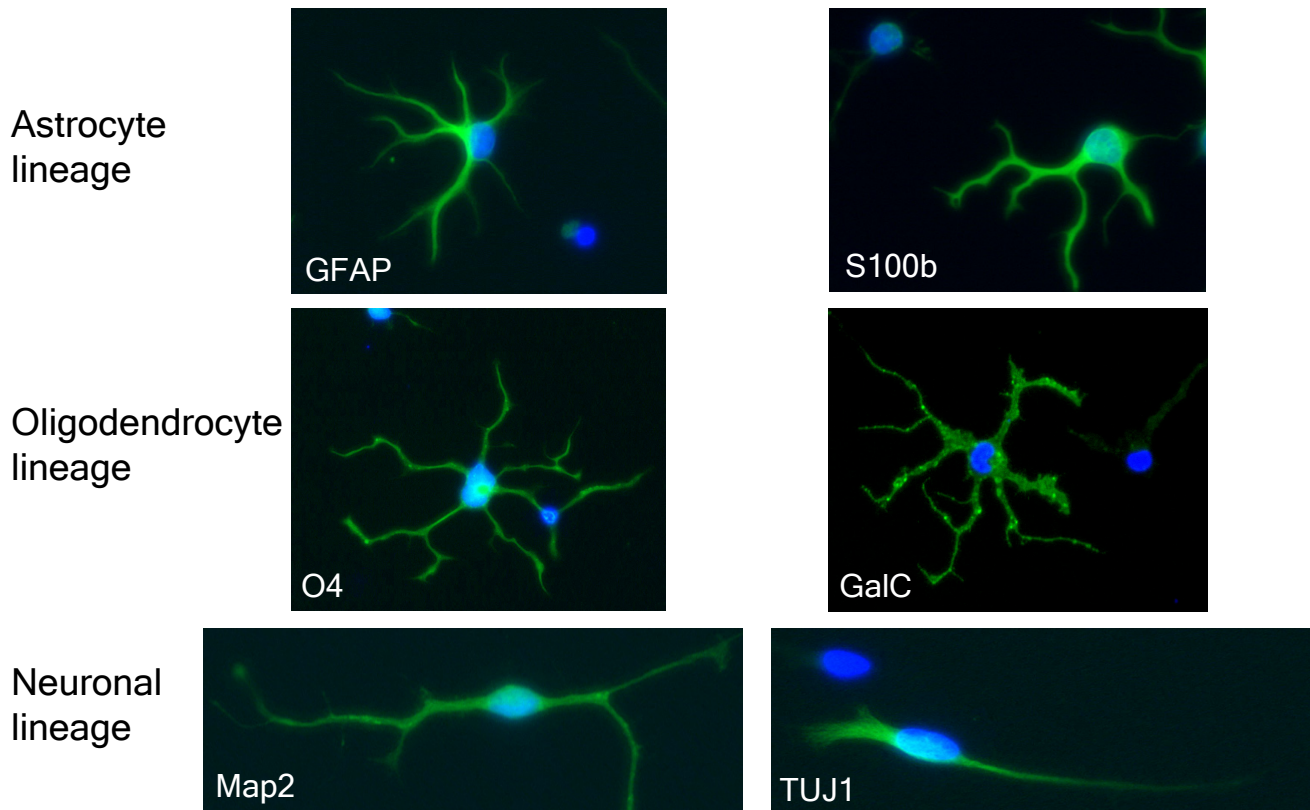


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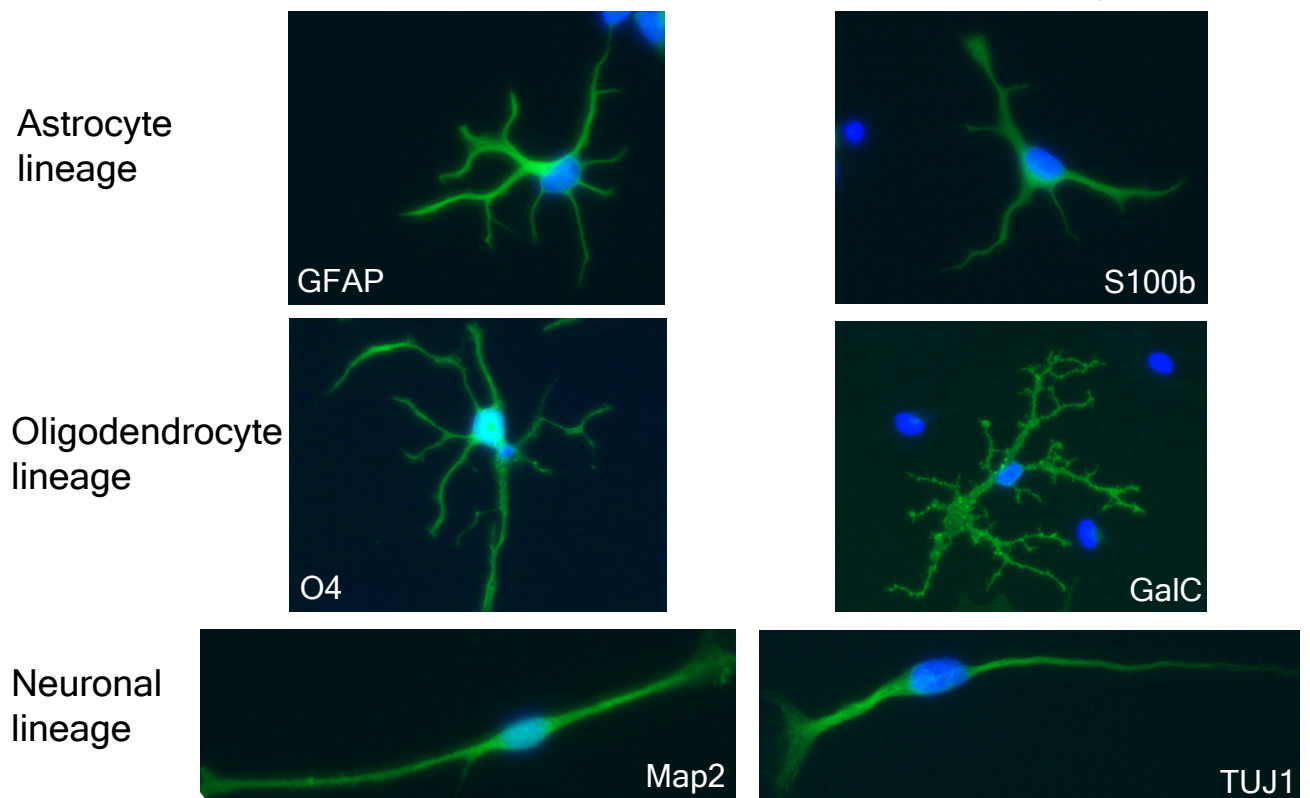
T3359 CD133-
glioma cells



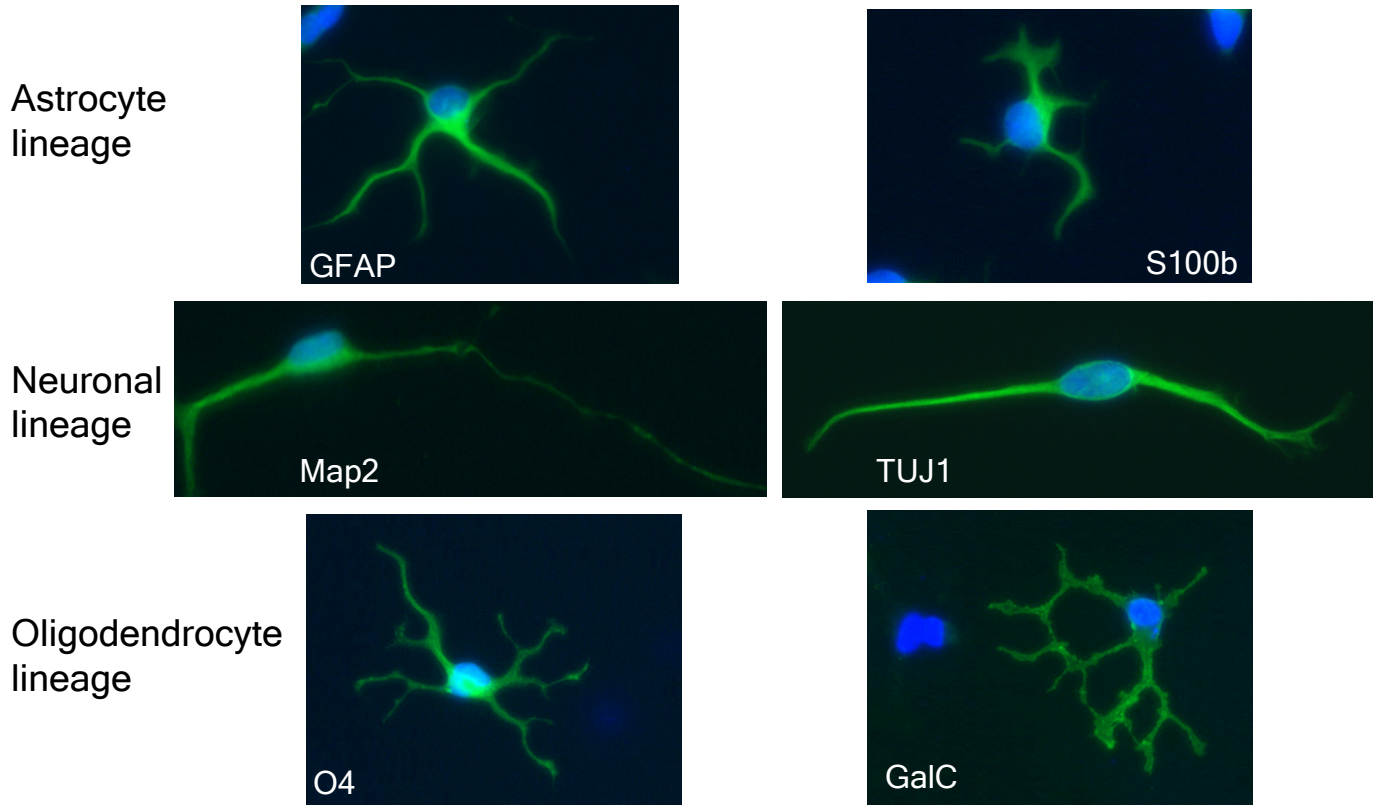
a Differentiation of Cancer Stem Cells from D456MG Xenograft



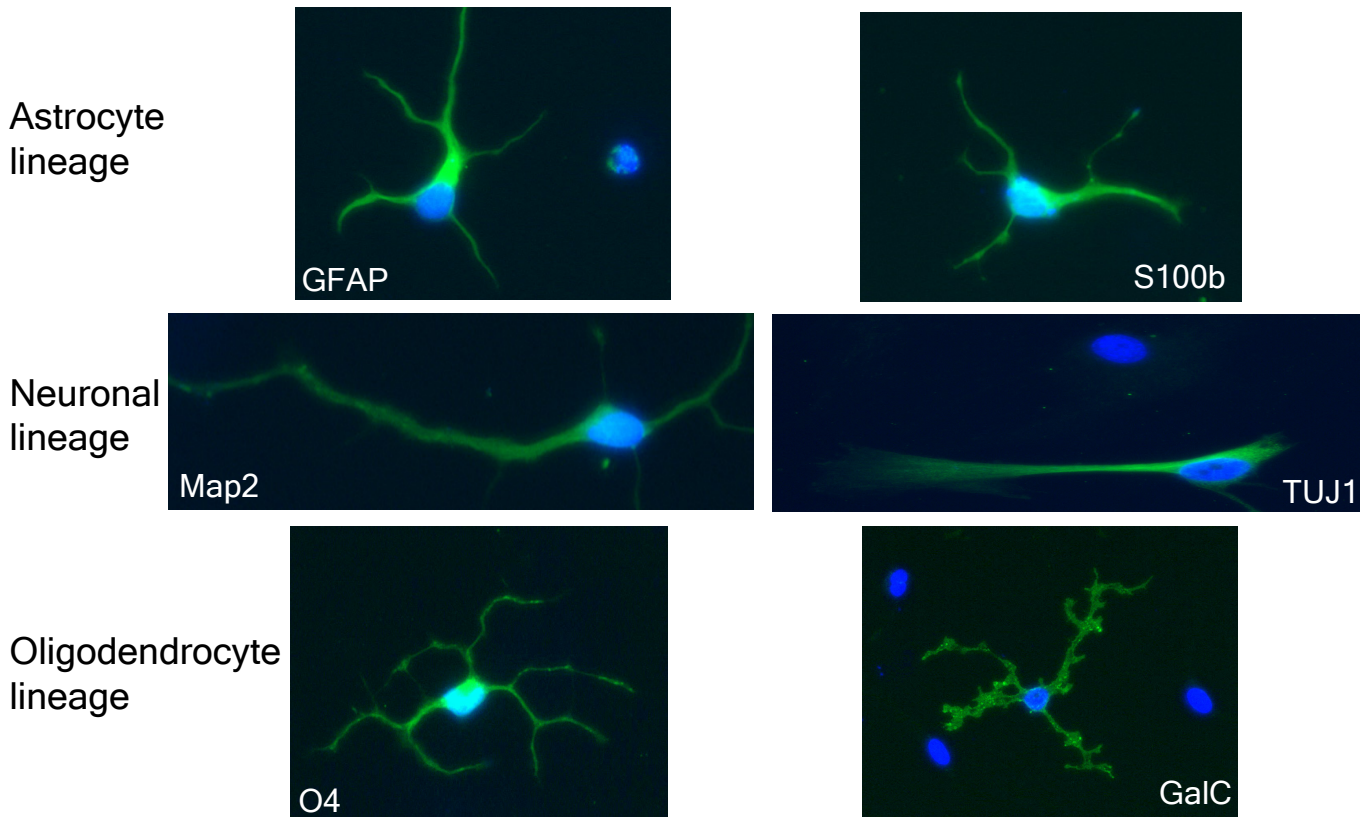
b Differentiation of Cancer Stem Cells from 3750 Primary Glioma

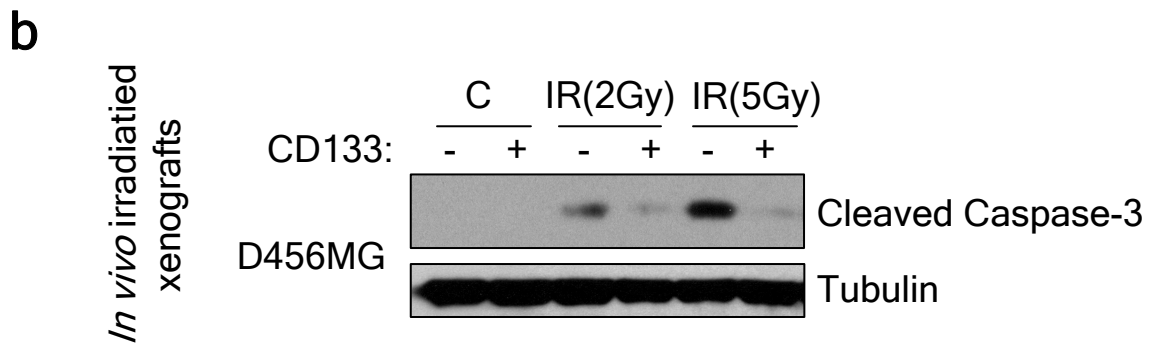
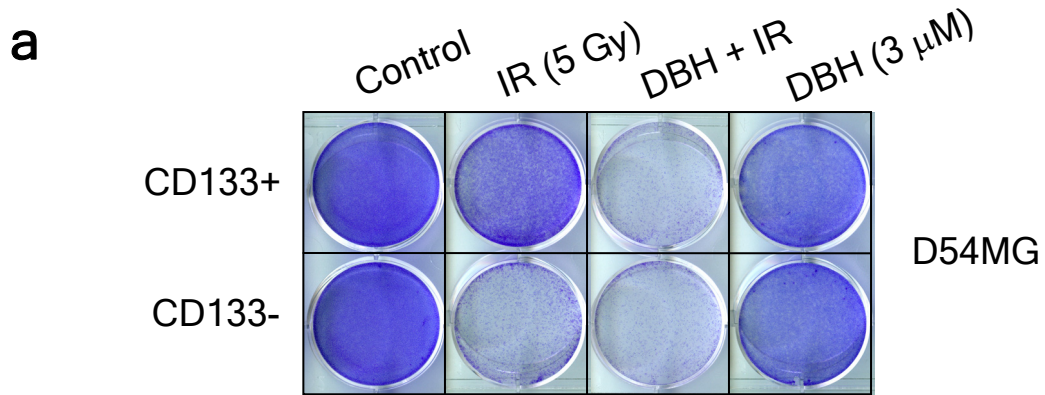


a Differentiation of Untreated Cancer Stem Cells from 3781 Primary Glioma

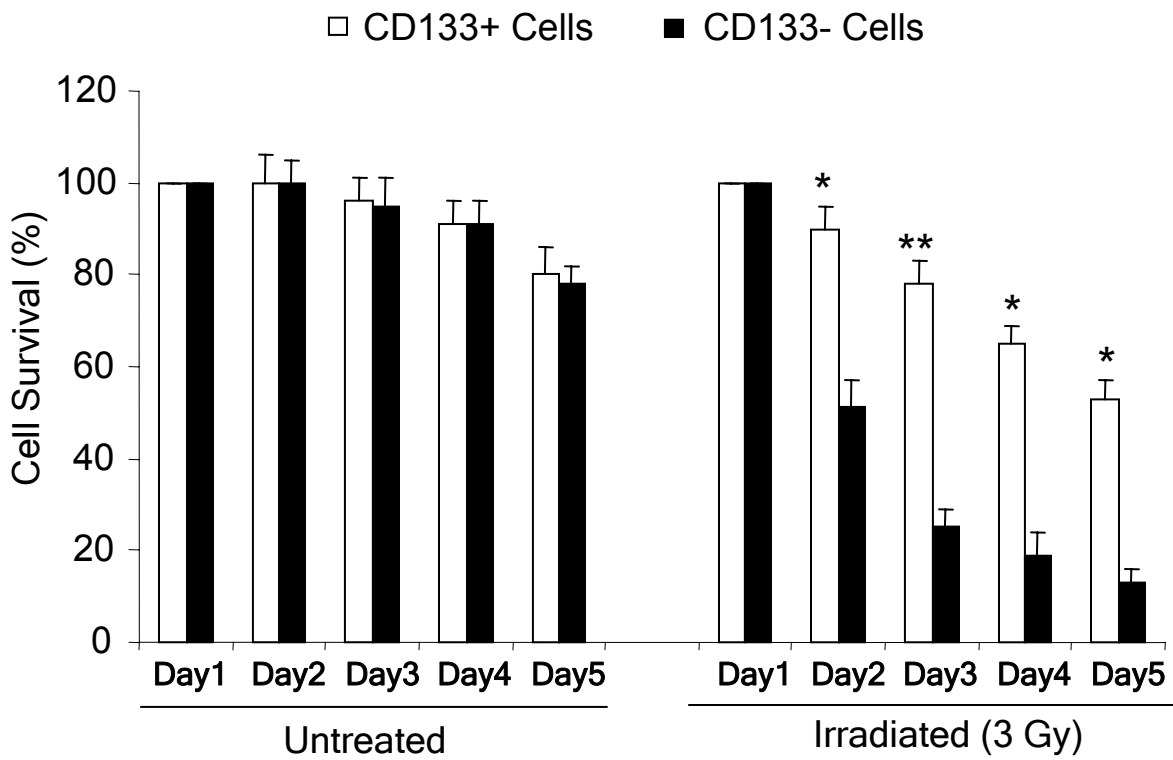


b Differentiation of Irradiated (2Gy) Cancer Stem Cells from 3781 Primary Glioma

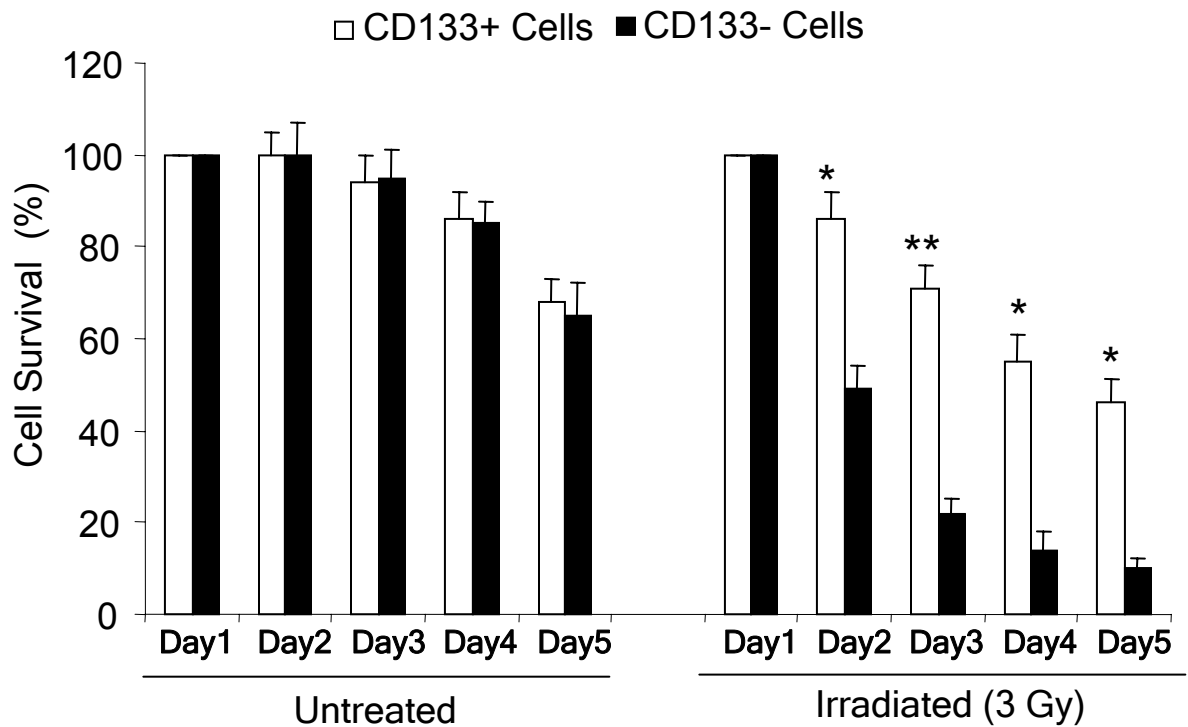




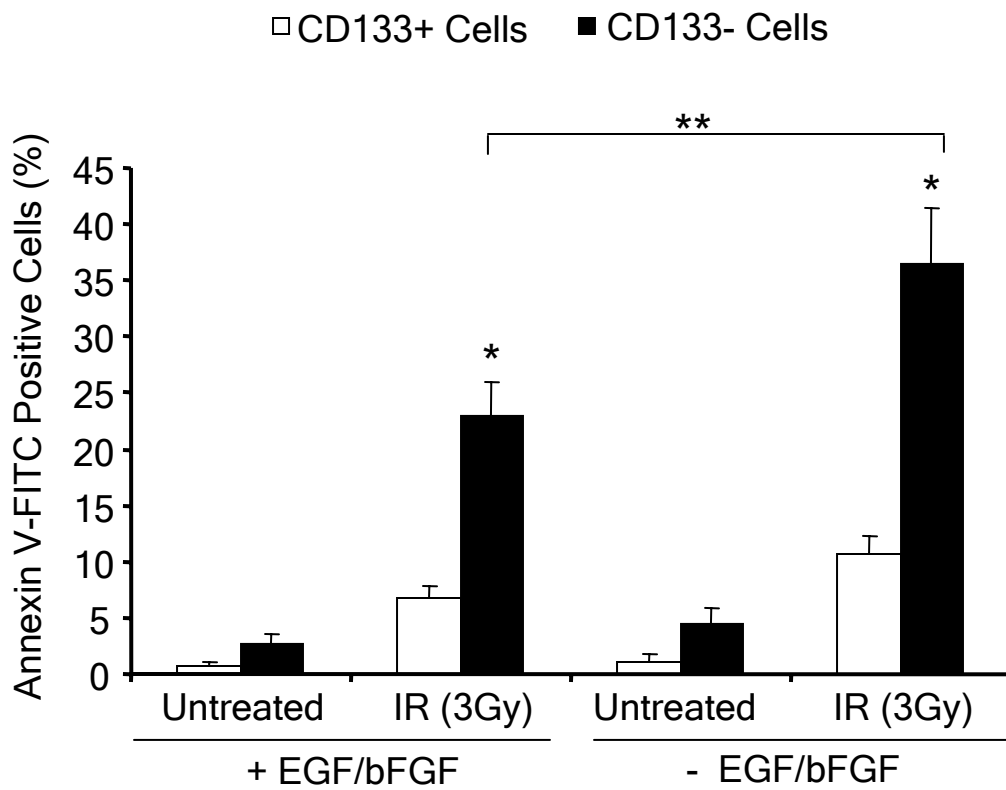
a D54MG Glioma Cell Survival in Neurobasal Media without Growth Factors



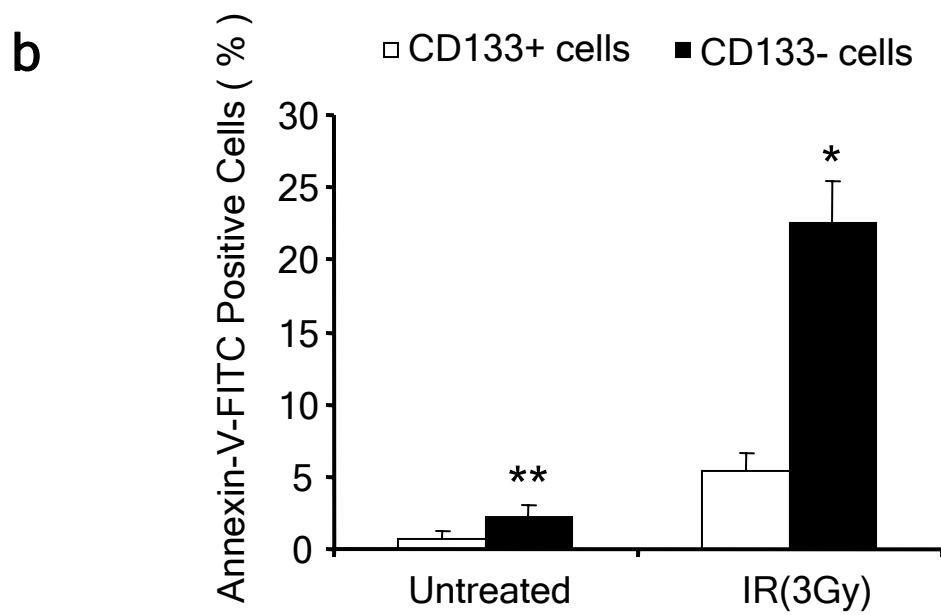
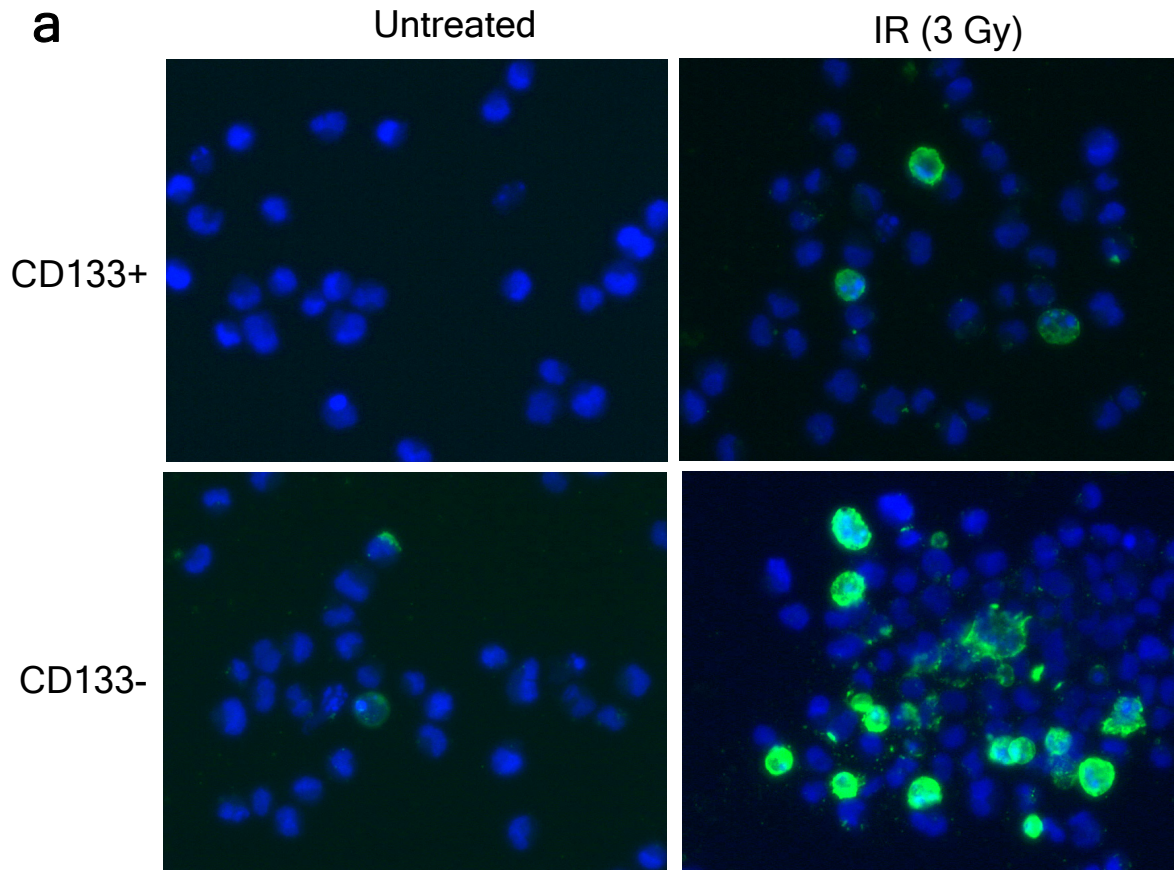
b T3781 Primary Glioma Cell Survival in Neurobasal Media without Growth Factors

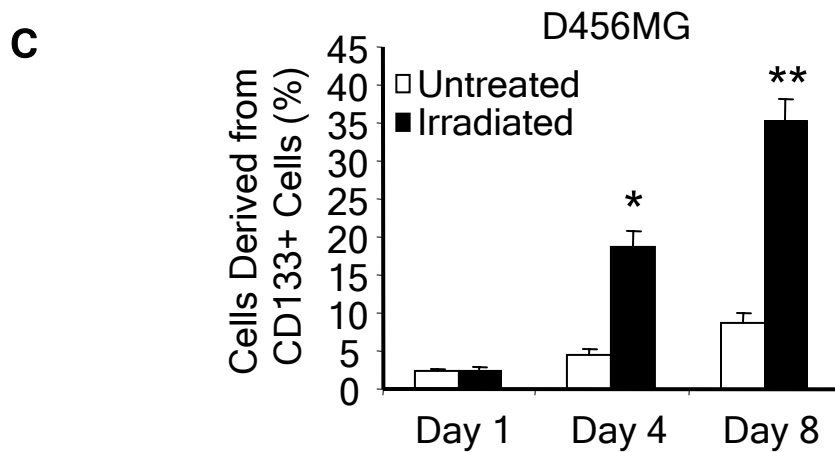
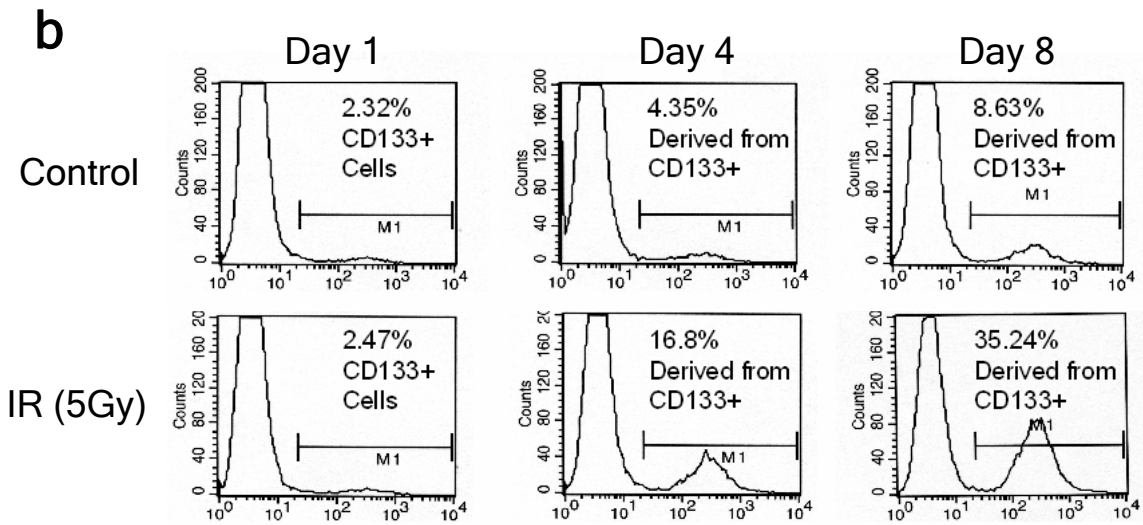
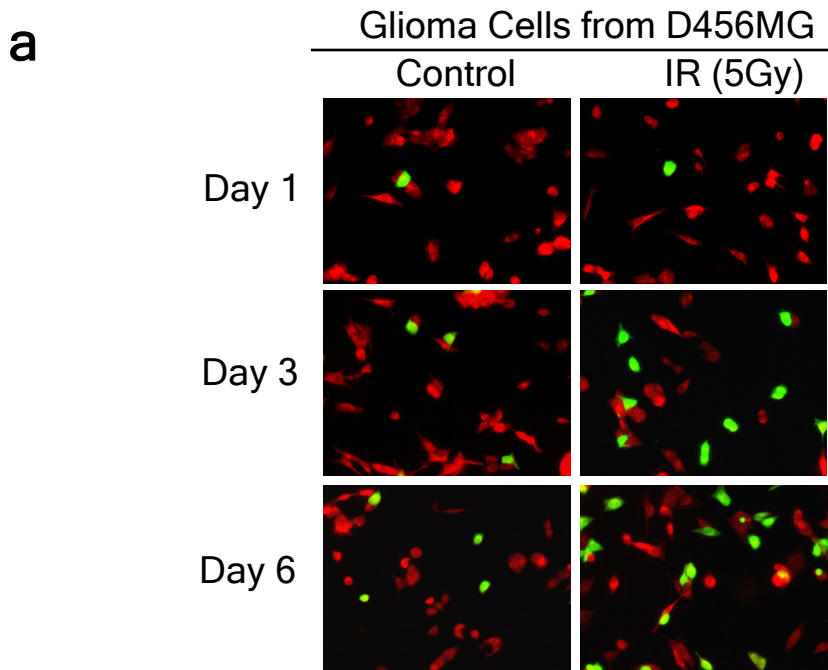


Apoptotic Cell Death of CD133- and CD133+ T3750 Cells Induced by IR in Neurobasal Media with and without Growth Factors

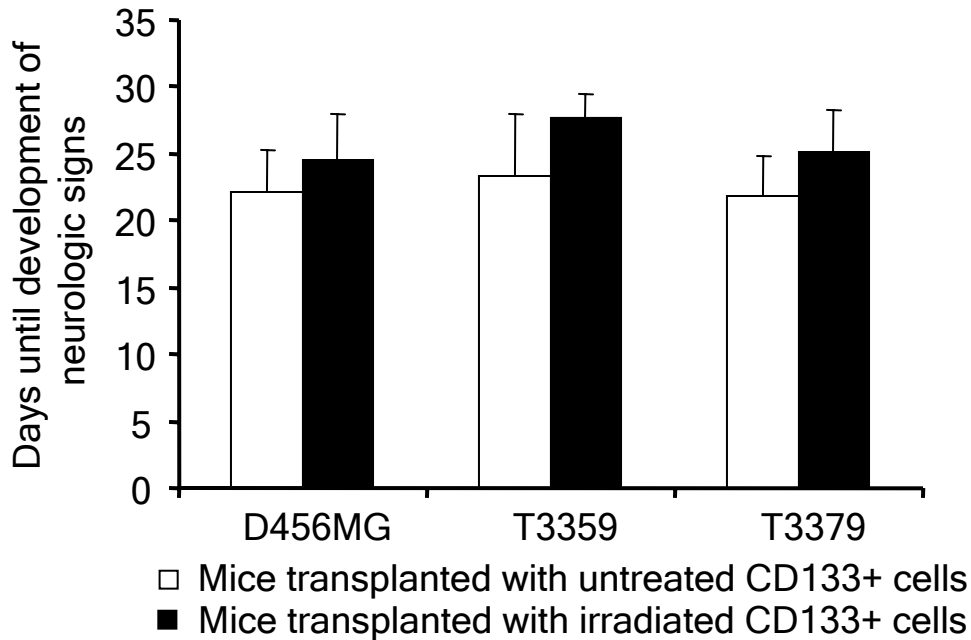


Annexin V-FITC Measurement of IR-induced Apoptotic Cell Death of CD133+ and CD133- Cells from T3781 Primary Glioma

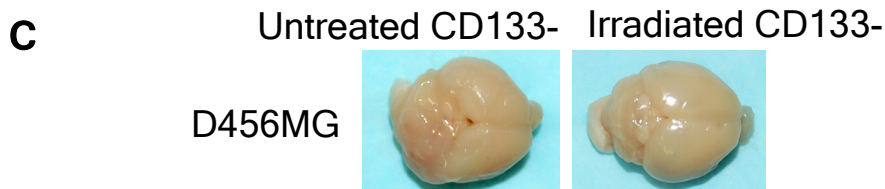
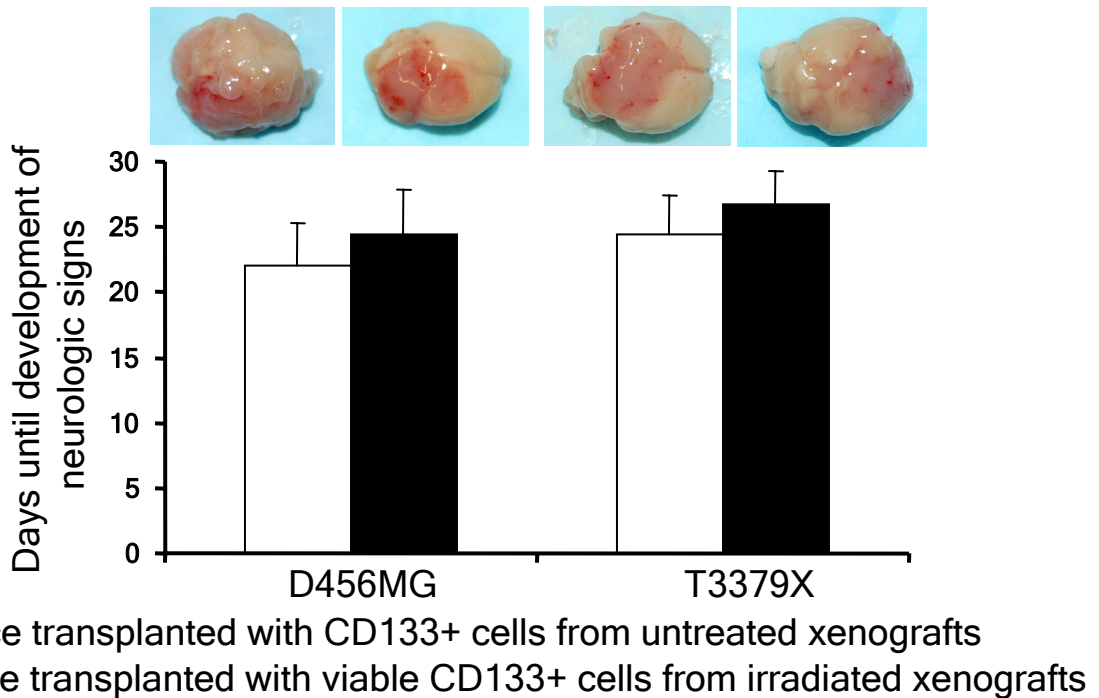


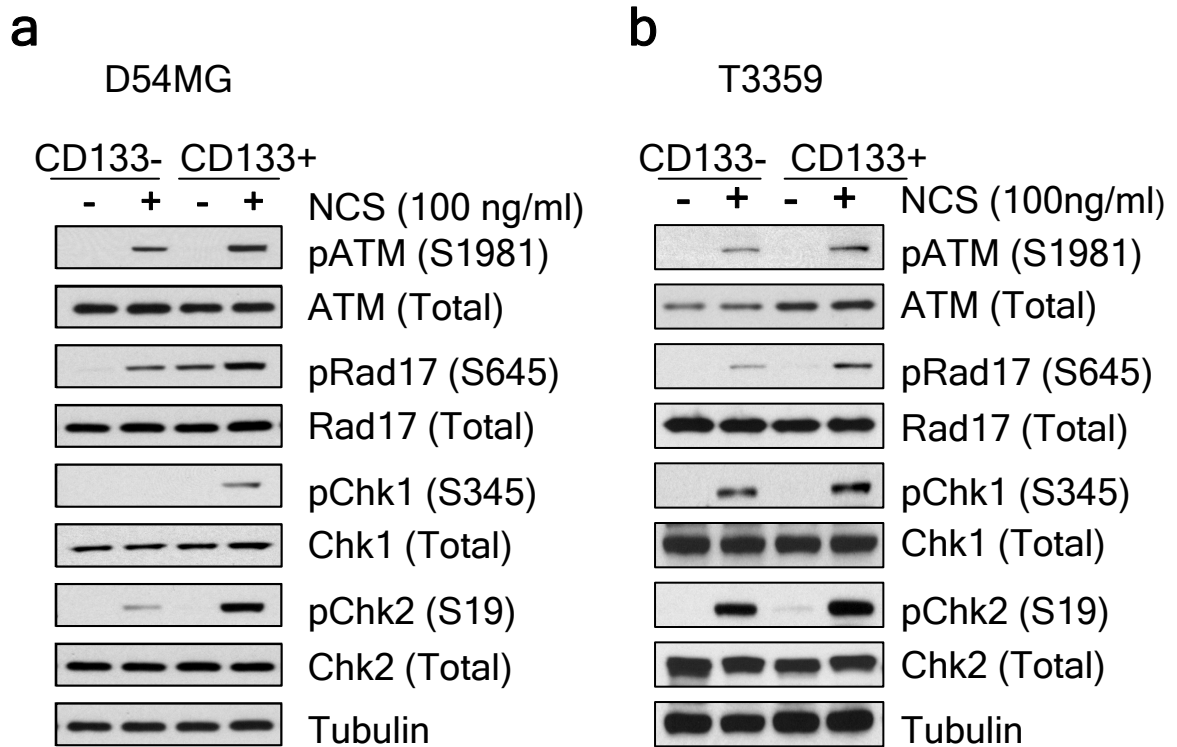


a 2 Gy Irradiated CD133+ cells derived from D456MG xenografts and primary glioma specimens are capable of tumour initiation in nude mouse brains

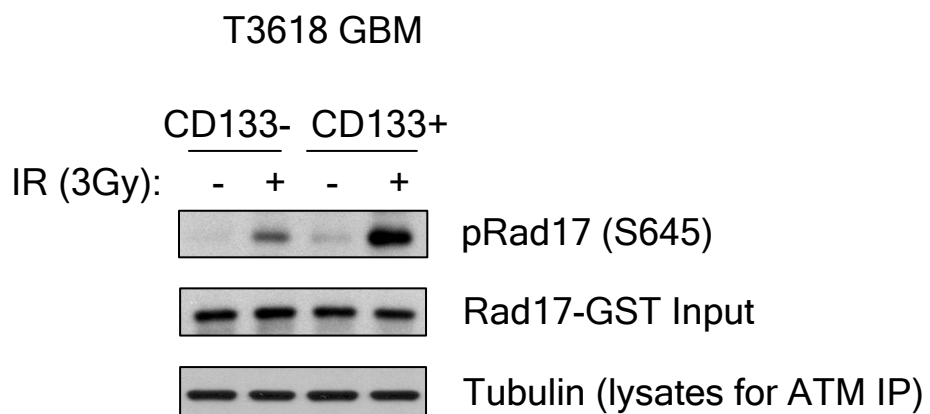


b Purified surviving CD133+ cells from 3 Gy irradiated D456MG and T3379 Xenografts are capable of tumour initiation in nude mouse brains

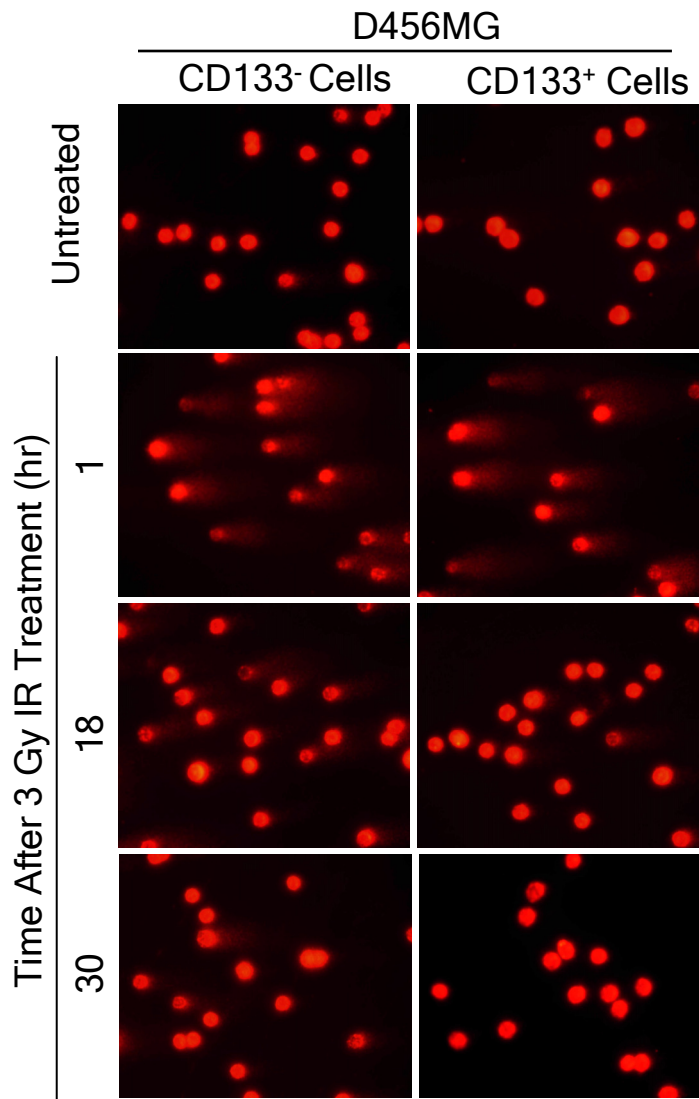




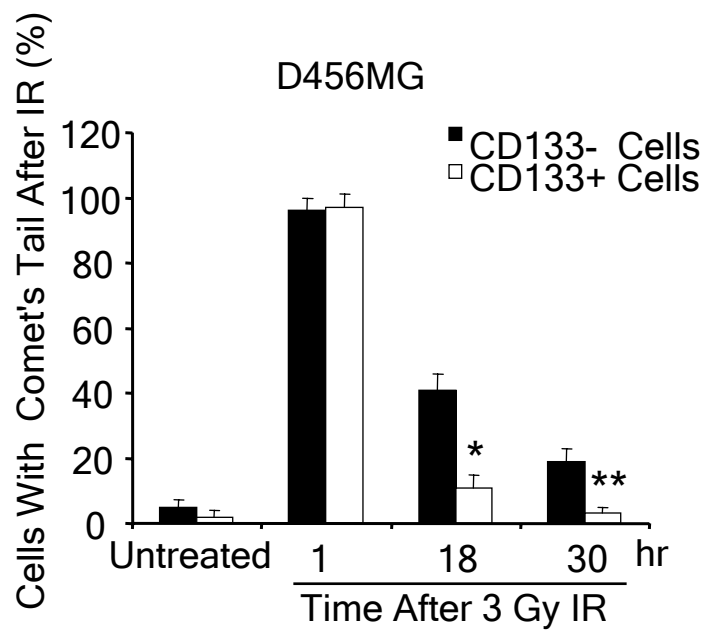
c ATM kinase activity induced by radiation in CD133+ cells is higher than in CD133- cells derived from human primary glioblastoma T3618

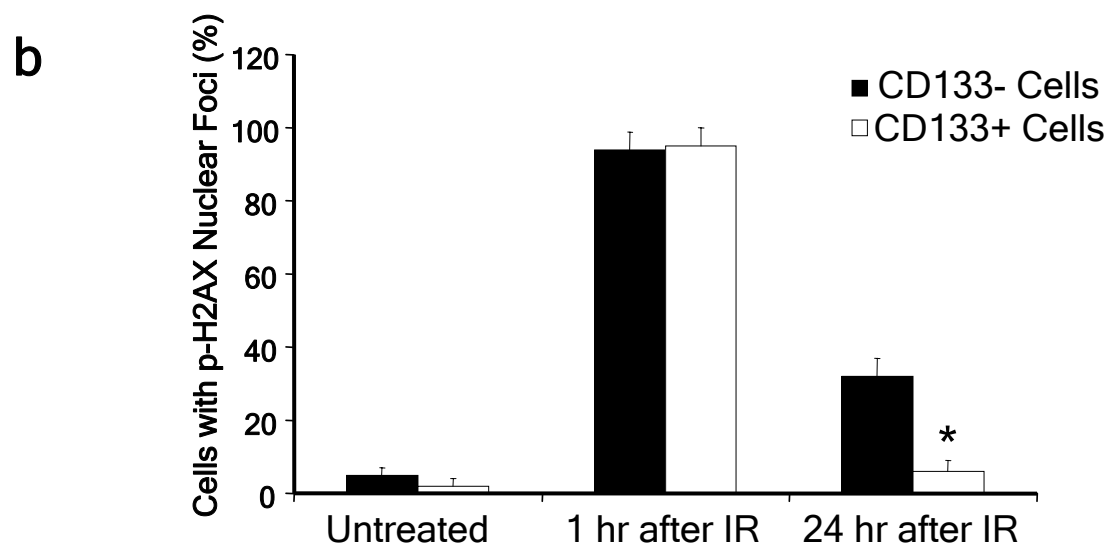
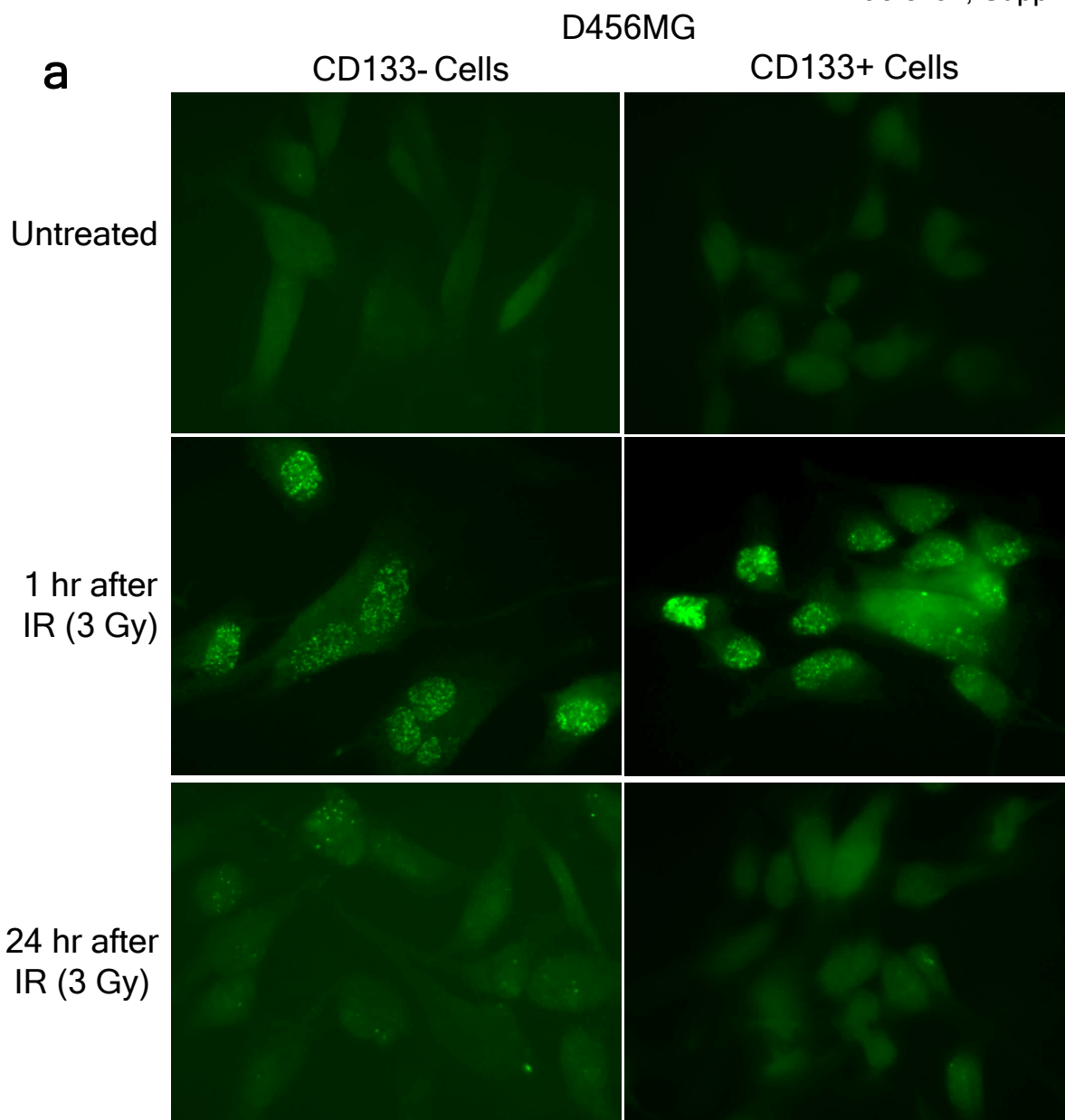


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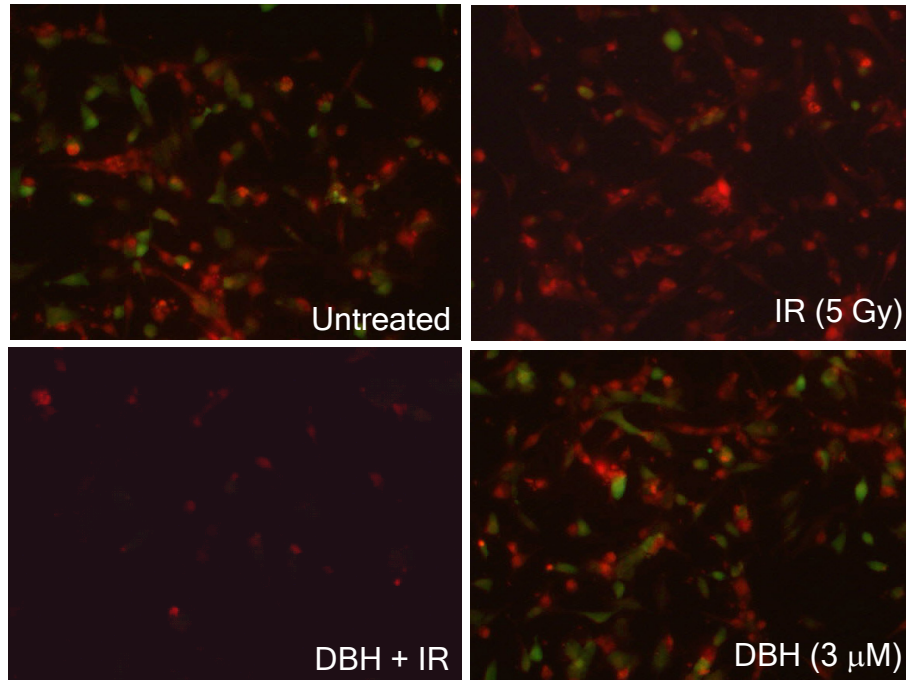


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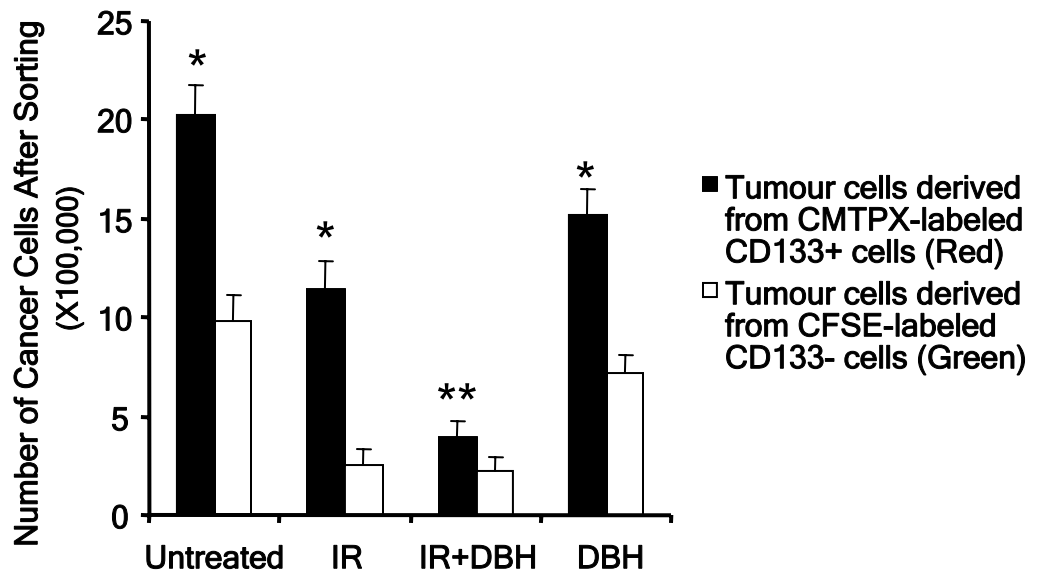




a



b



c

