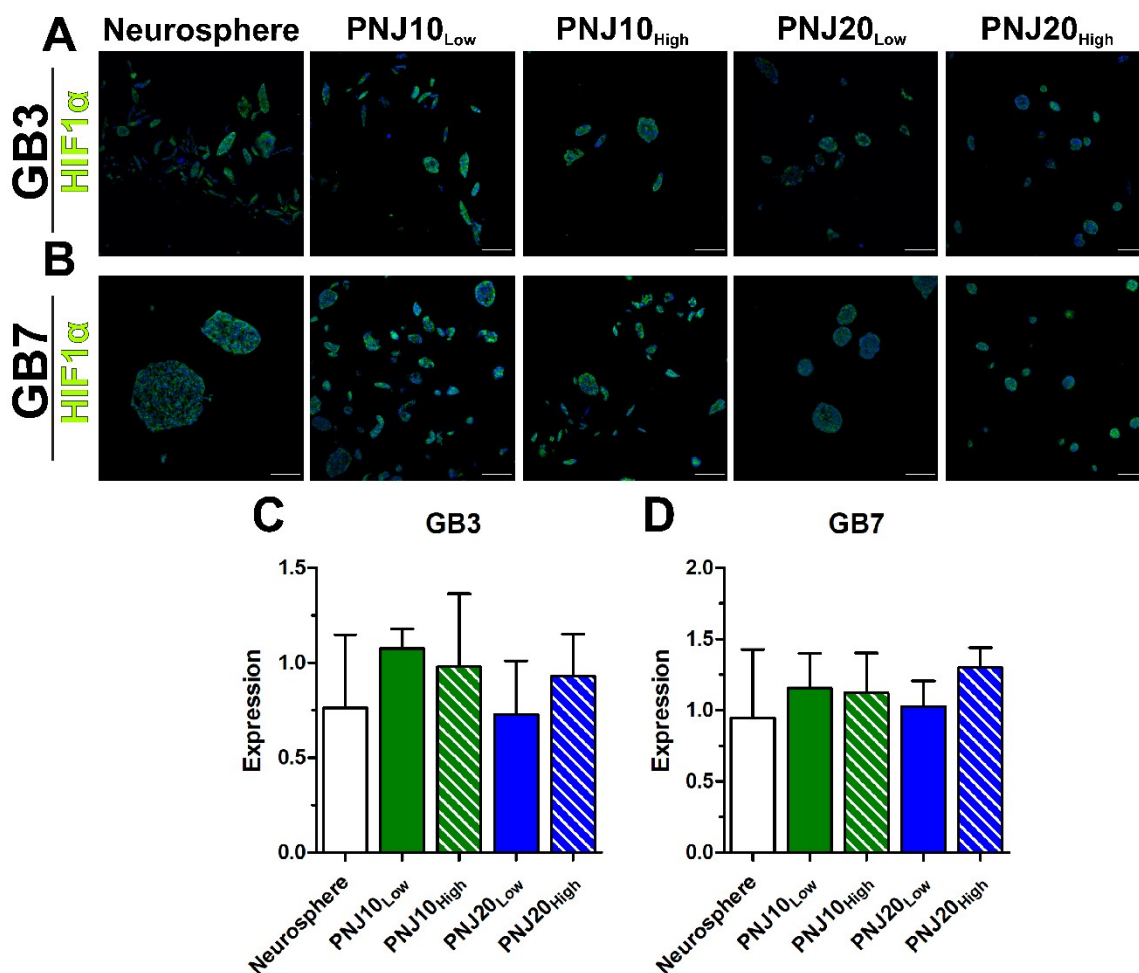


Supporting Information



Supplemental Figure 1. (A) HIF1 α (green) expression in GB3 and GB7 cells in neurosphere and PNJ scaffold cultures. (B, C) Quantification of immunofluorescence staining was used for direct comparison of expression.

Supplemental Table 1: List of primary and secondary antibodies used in this study.

Primary	Company	Product #	Host	Dilution
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Antibodies

NESTIN	Novus Biologicals	NB300-266	Mouse	1:200
HIF2 α	Millipore	MAB3472	Mouse	1:200
HIF1 α	Abcam	ab2185	Rabbit	1:800
Ki67	Cell Signaling	9449S	Mouse	1:400
γ H2AX	Cell Signaling	2577S	Rabbit	1:400
FAK	Novus Biologicals	NBP1-47494	Mouse	1:200
pAKT	Cell Signaling	4060S	Rabbit	1:25
EGFR	Abcam	AB52894	Rabbit	1:200

**Secondary
Antibodies**

	Company	Product #	Host / Isotype	Dilution
Alexa Fluor 488	Thermo Fisher	A21121	Goat anti-Mouse IgG1	1:500
Alexa Fluor 488	Thermo Fisher	A21151	Goat anti-Mouse IgG3	1:500
Alexa Fluor 568	Thermo Fisher	A11011	Goat anti-Rabbit IgG	1:500

Supplemental Table 2: Cells counted for semi-quantitative analysis of immunofluorescence staining.

Cells	Marker	Radiation	Culture	Cells Counted
GB3	TUNEL	2 Gy	Neurosphere	384
			PNJ10 _{Low}	470
			PNJ10 _{High}	364
			PNJ20 _{Low}	689
			PNJ20 _{High}	344
GB3	γ H2AX	2 Gy	Neurosphere	865
			PNJ10 _{Low}	340
			PNJ10 _{High}	281

			PNJ20 _{Low}	689
			PNJ20 _{High}	344
GB3	Ki67	2 Gy	Neurosphere	865
			PNJ10 _{Low}	340
			PNJ10 _{High}	281
			PNJ20 _{Low}	689
			PNJ20 _{High}	344
GB7	TUNEL	2 Gy	Neurosphere	3907
			PNJ10 _{Low}	1399
			PNJ10 _{High}	1262
			PNJ20 _{Low}	2535
			PNJ20 _{High}	1802
GB7	γ H2AX	2 Gy	Neurosphere	1396
			PNJ10 _{Low}	347
			PNJ10 _{High}	274
			PNJ20 _{Low}	166
			PNJ20 _{High}	362
GB7	Ki67	2 Gy	Neurosphere	1396
			PNJ10 _{Low}	347
			PNJ10 _{High}	274
			PNJ20 _{Low}	166
			PNJ20 _{High}	362
GB3	NESTIN	0 Gy	Neurosphere	1009
			PNJ10 _{Low}	3241
			PNJ10 _{High}	907
			PNJ20 _{Low}	898
			PNJ20 _{High}	318
GB3	NESTIN	2 Gy	Neurosphere	719
			PNJ10 _{Low}	1064
			PNJ10 _{High}	499
			PNJ20 _{Low}	843
			PNJ20 _{High}	394

GB3	HIF2 α	0 Gy	Neurosphere	673
			PNJ10 _{Low}	338
			PNJ10 _{High}	249
			PNJ20 _{Low}	1454
			PNJ20 _{High}	394
GB3	HIF2 α	2 Gy	Neurosphere	696
			PNJ10 _{Low}	531
			PNJ10 _{High}	397
			PNJ20 _{Low}	492
			PNJ20 _{High}	326
GB7	NESTIN	0 Gy	Neurosphere	3777
			PNJ10 _{Low}	1280
			PNJ10 _{High}	632
			PNJ20 _{Low}	1560
			PNJ20 _{High}	495
GB7	NESTIN	2 Gy	Neurosphere	4418
			PNJ10 _{Low}	424
			PNJ10 _{High}	454
			PNJ20 _{Low}	713
			PNJ20 _{High}	590
GB7	HIF2 α	0 Gy	Neurosphere	2747
			PNJ10 _{Low}	407
			PNJ10 _{High}	1154
			PNJ20 _{Low}	901
			PNJ20 _{High}	352
GB7	HIF2 α	2 Gy	Neurosphere	2062
			PNJ10 _{Low}	1190
			PNJ10 _{High}	751
			PNJ20 _{Low}	603
			PNJ20 _{High}	540
GB3	HIF1 α	0 Gy	Neurosphere	975
			PNJ10 _{Low}	662

GB7	HIF1 α	0 Gy	PNJ10 _{High}	588
			PNJ20 _{Low}	623
			PNJ20 _{High}	674
			Neurosphere	2928
			PNJ10 _{Low}	1140
			PNJ10 _{High}	578
			PNJ20 _{Low}	903
			PNJ20 _{High}	346