

Supplemental Figures and Figure Legends

Title: Dependence On Glycolysis Sensitizes BRAF-mutated Melanomas For Increased Response To Targeted BRAF Inhibition

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Supplemental Table 1

Table 1. BRAF-Mutated Melanoma Cell Lines Exhibit Heterogeneity

	Relevant Mutation/Biology			IC50 Metrics
Cell Line	BRAF Mutation	P53 Status	PTEN Status	IC50 (uM)
WM164	V600E	MU	WT	1.34
A375	V600E (HOMOZ)	WT	WT	1.55
WM88	V600E	WT	WT	1.83
SKMEL28	V600E (HOMOZ)	MU	MU	2.55
WM793	V600E	WT	MU/HEM DEL	4.35
SKMEL5	V600E	WT	WT	5.42
WM2664	V600D	WT	HEM DEL	5.49
WM983B	V600E	MU	WT	12.6
WM115	V600D	WT	HEM DEL	13.7
A2058	V600E	MU	MU	38.3

Table Legend:

Cell Line mutation information from WISTAR Institute website, COSMIC website, and and Birgit Schitteck, et al., Int J. of Cancer; 82, 583-585 (1999)

Supplemental Figure S1

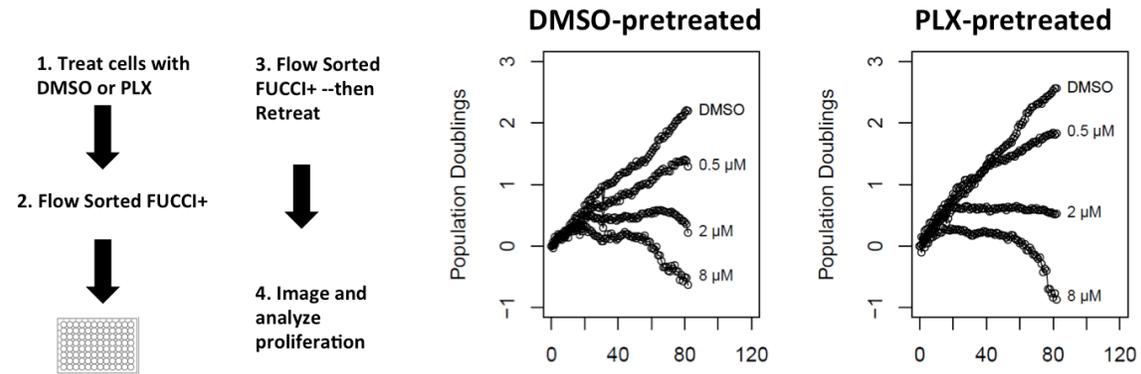


Figure Legend:

Schematic outlines the flow of the experimental design: the cells are pre-treated for 72 hours with either DMSO or PLX4720, then flow sorted for positive fluorescence-ubiquitin-linked cell cycle indicator (FUCCI). Those cells were seed in 96 well plates overnight, then retreated with PLX4720. The proliferation was log-2 normalized and plotted as population doubling (y-axis) over time (x-axis, in hours). The cell line used was A375.

Supplemental Figure S2

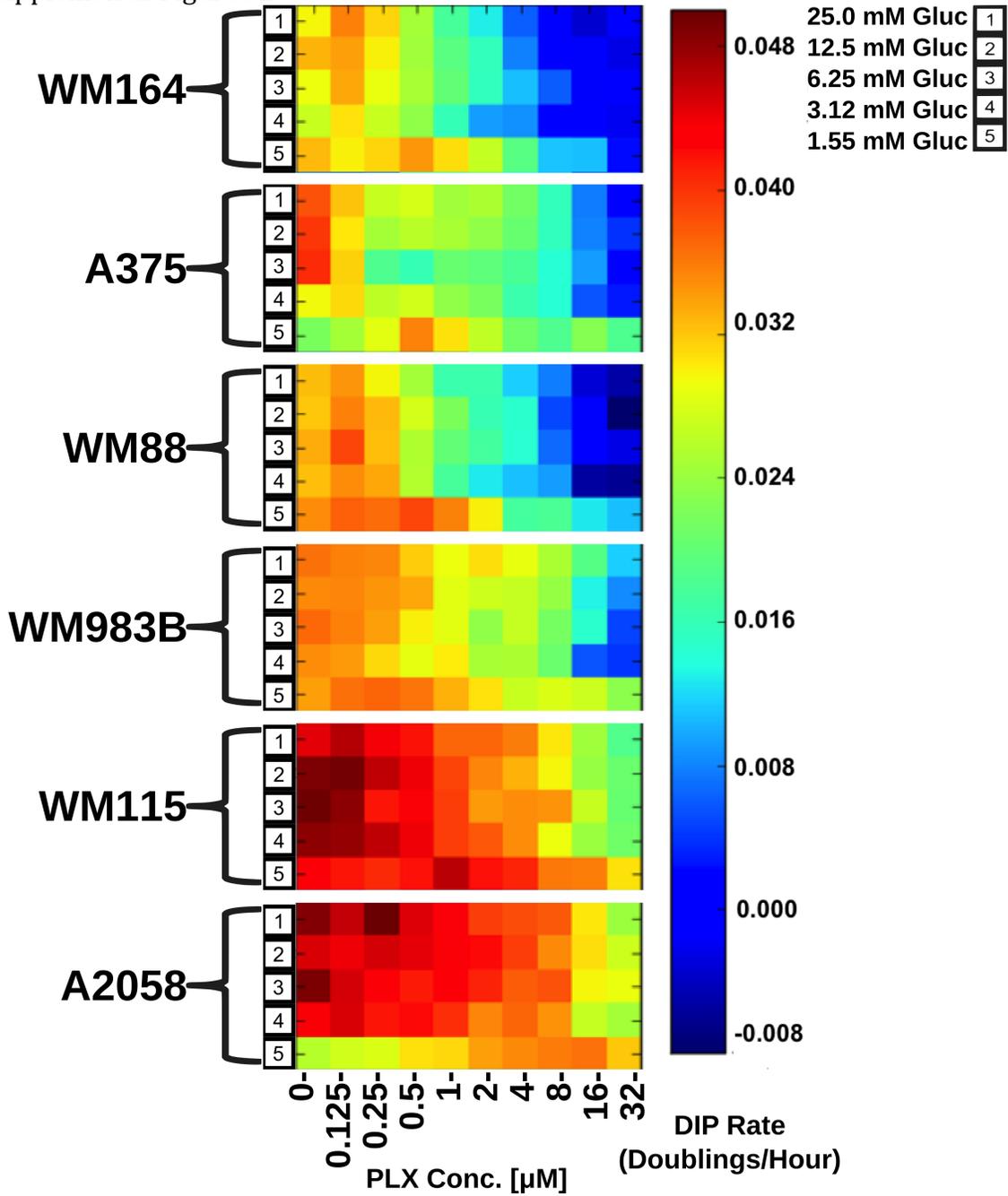


Figure Legend:

Un-scaled heatmap of the proliferative responses of cell lines treated in PLX4720 dose-response assay coupled with varying glucose concentrations (indicated in legend, 5 glucose/media conditions total). The doses of PLX4720 are the x-axis (10 doses, from 32 μ M to zero/DMSO) and concentrations of glucose are the y-axis (from 25 mM to 1.55 mM, labeled using legend key).

Supplemental Figure S3

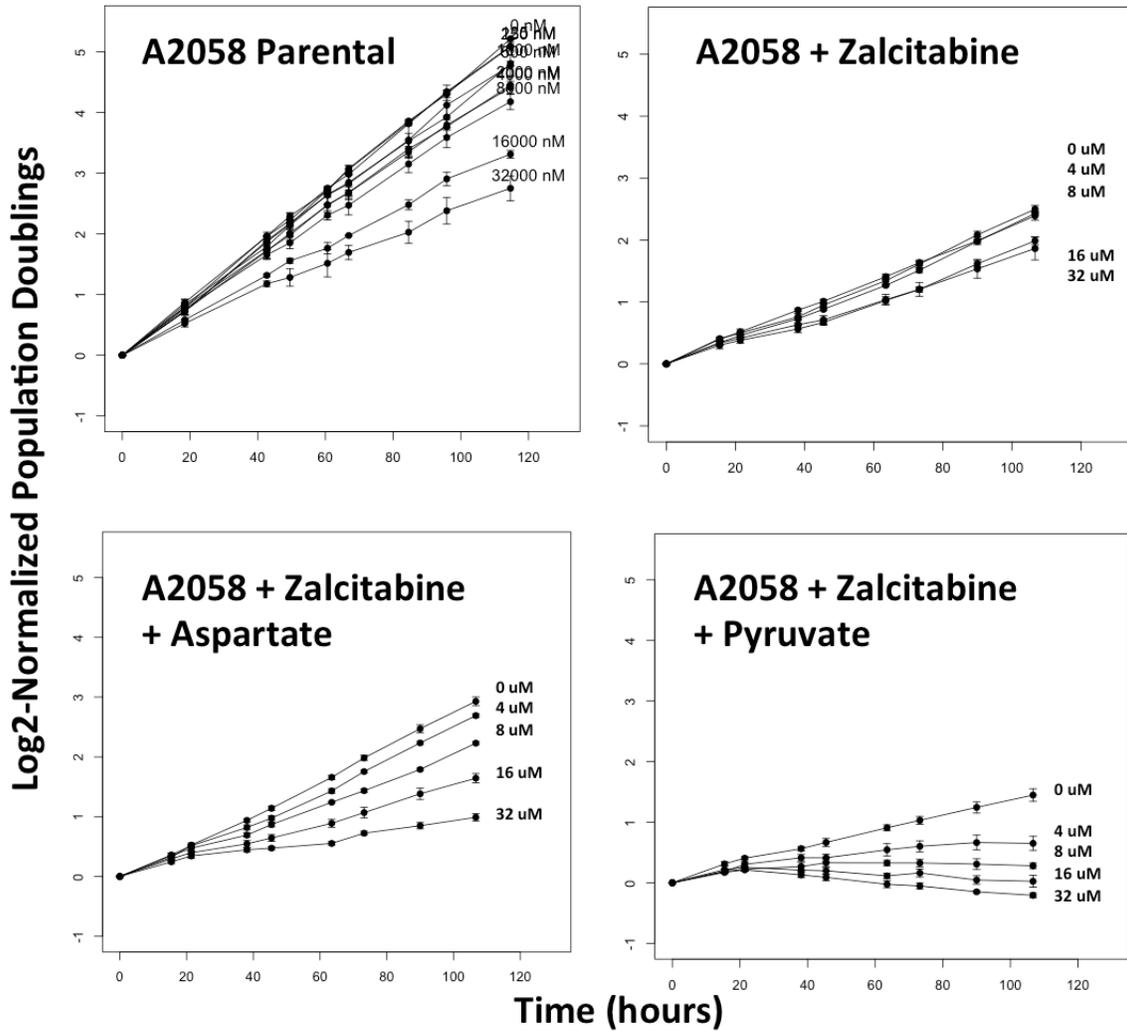


Figure Legend:

Log2-normalized proliferation of parental A2058 (top left plot) and pre-treated ddC/zalcitabine A2058 (remaining 3 plots, pre-treated with 40uM of zalcitabine for ~5 days). 10 mM Aspartate (bottom left) or 10 mM Sodium Pyruvate (bottom right) was added to the medium.

Supplemental Figure S4

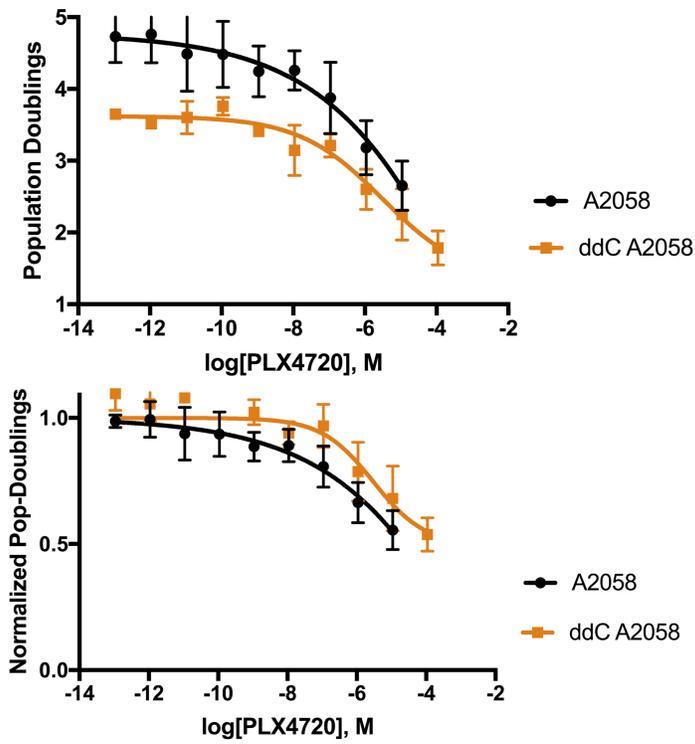


Figure Legend:
Non-normalized (upper panel) and normalized (lower panel) dose-response curves of A2058 parental and A2058 pre-treated with ddC.

Supplemental Matlab Code for PCA Analysis:

Code is available in the public repository in GitHub:

https://github.com/hardemkn/Hardeman_et_al_2016