

Supplemental figures

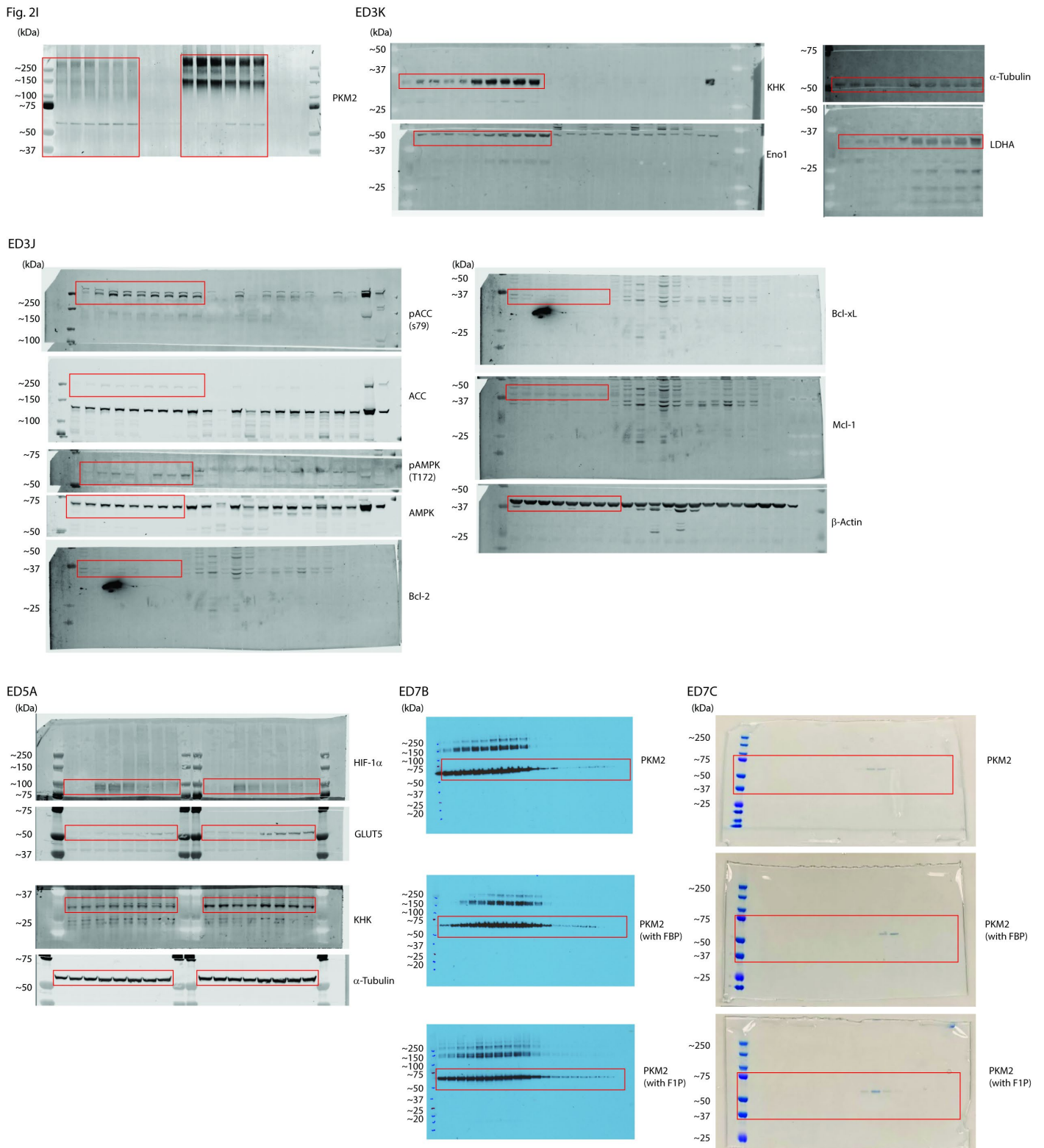


Fig. S1. Uncropped images

Uncropped immunoblots for figure 2I and extended data through 7B, as well as uncropped coomassie images for extended data 7C. Red box indicates the crop area for the corresponding figure. In all cases where loading controls (b-Actin or a-Tubulin) were blotted, these were performed on the same membrane as the other displayed targets.

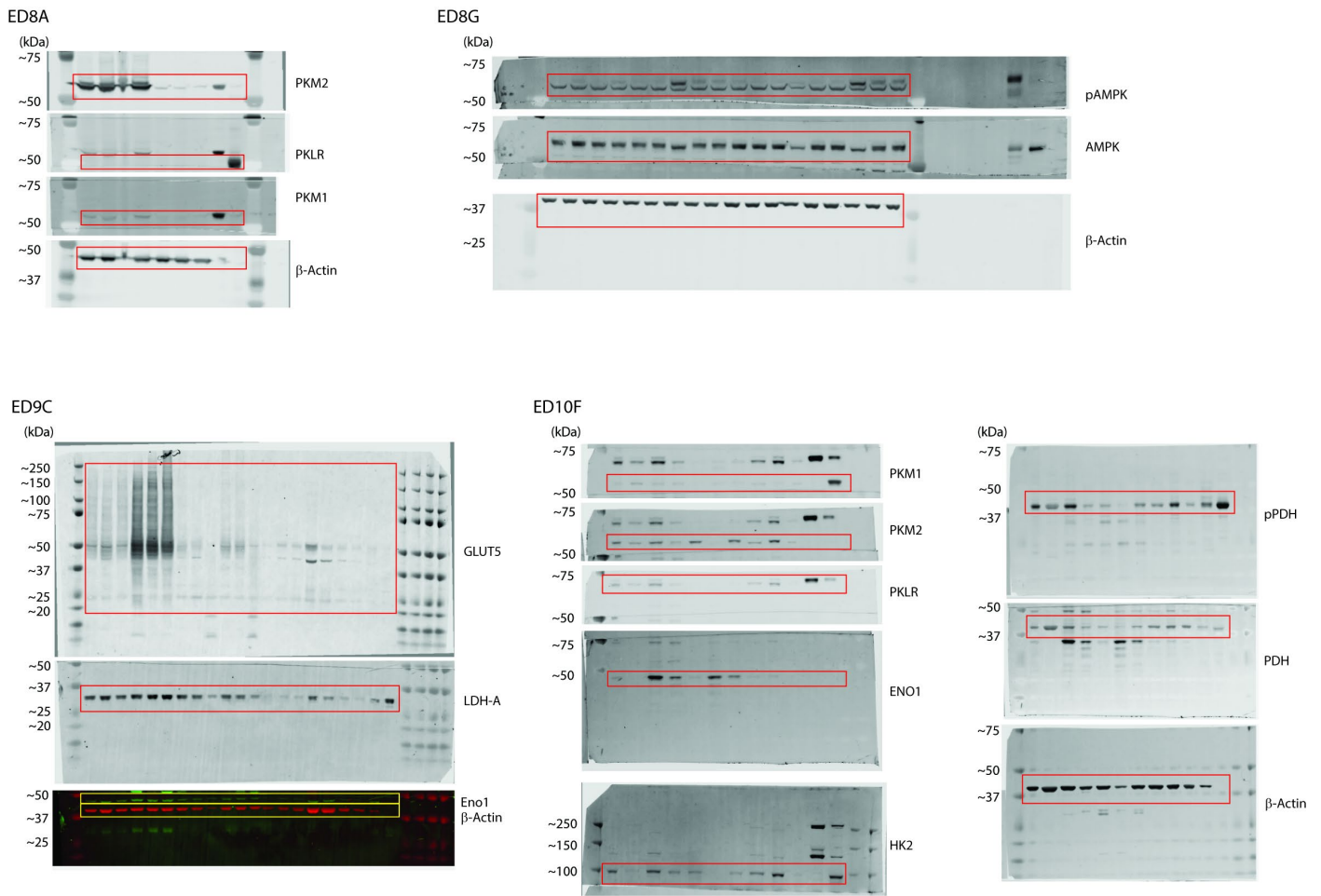


Fig. S2. Uncropped images

Uncropped immunoblots for extended data 8A through 10F. Red box indicates the crop area for the corresponding figure. In all cases where loading controls (b-Actin or a-Tubulin) were blotted, these were performed on the same membrane as the other displayed targets.

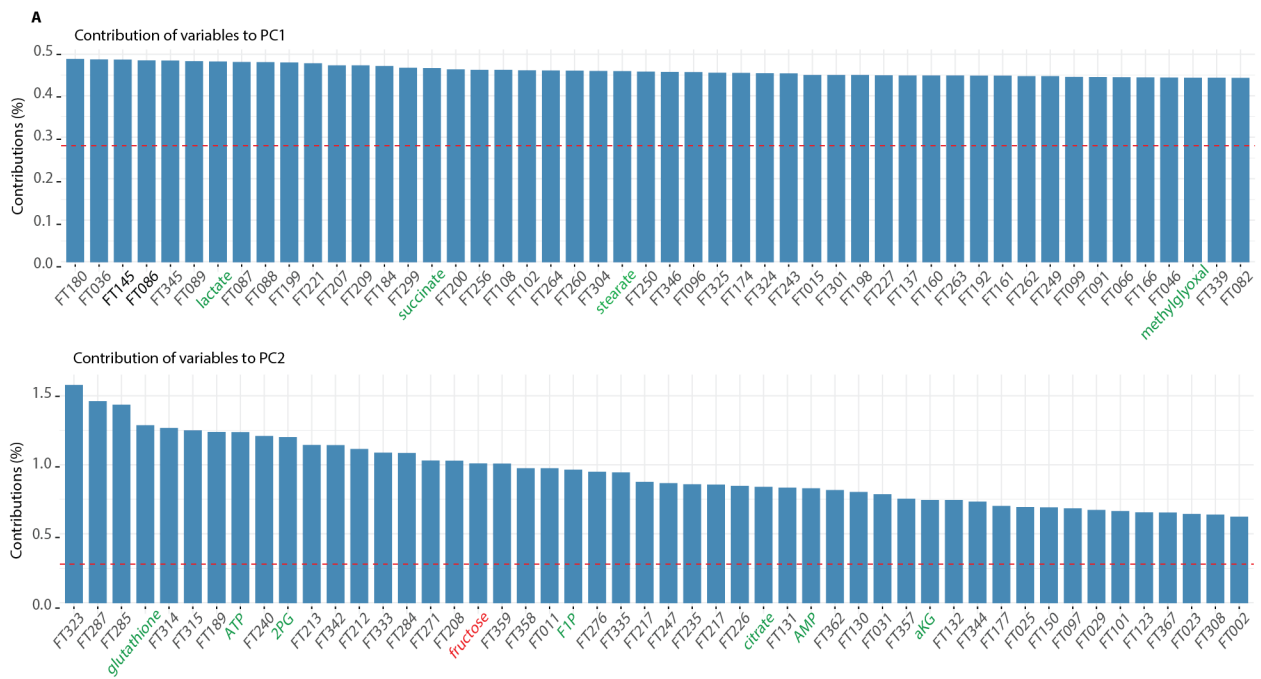


Fig. S3. HCT116 LC-MS metabolomics loadings

Loading plots for PC1 and PC2 with specific identified metabolites highlighted.

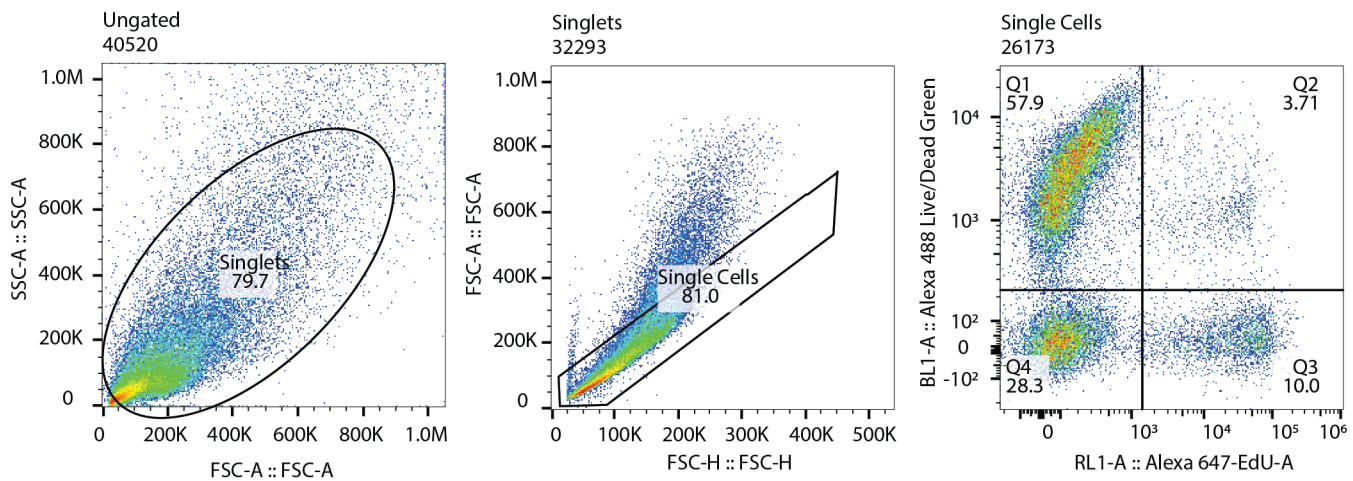


Fig. S4. Gating strategy for assessing organoid viability and proliferation.

Product #	D17011901		D19090601		D19090602	
	<i>Match Purina 5053</i>		<i>High-Fat</i>		<i>High-Fat/Sucrose</i>	
	gm%	kcal%	gm%	kcal%	gm%	kcal%
Protein	23.4	25	28.0	25	28.0	25
Carbohydrate	59.9	62	36.0	30	36.0	30
Fat	5.4	13	22.4	45	22.4	45
Total		100		100		100
kcal/gm	3.76		4.51		4.51	
Ingredient	gm	kcal	gm	kcal	gm	kcal
Casein	250	1000	250	1000	250	1000
L-Cystine	3.8	15.2	3.8	15.2	3.8	15.2
Corn Starch	381	1524	57	228	0	0
Maltodextrin 10	110	440	110	440	0	0
Sucrose	0	0	0	0	291	1164
Dextrose	124	496	124	496	0	0
Cellulose, BW200	75	0	75	0	75	0
Inulin	25	37.5	25	37.5	25	37.5
Soybean Oil	59	531	59	531	59	531
Lard	0	0	144	1296	144	1296
Mineral Mix S10026	10	0	10	0	10	0
Dicalcium Phosphate	13	0	13	0	13	0
Calcium Carbonate	5.5	0	5.5	0	5.5	0
Potassium Citrate, 1 H2O	16.5	0	16.5	0	16.5	0
Vitamin Mix V10001	10	40	10	40	10	40
Choline Bitartrate	2	0	2	0	2	0
Yellow Dye #5, FD&C	0.025	0	0.05	0	0	0
Red Dye #40, FD&C	0	0	0	0	0.05	0
Blue Dye #1, FD&C	0.025	0		0	0	0
Total	1084.85	4084	904.85	4084	904.85	4084

Table S1.

Custom diet compositions for the sucrose-free control (D17011901), High-Fat (D19090601), and High-Fat/Sucrose (D19090602) diets.