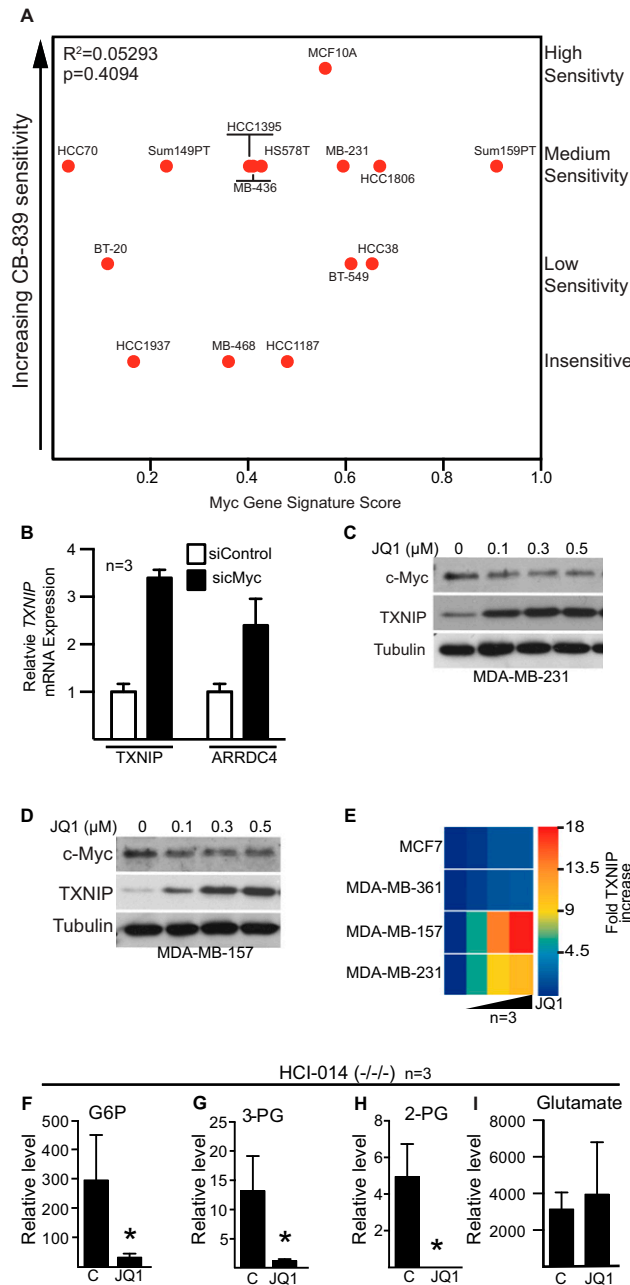


# Supporting Information

Shen et al. 10.1073/pnas.1501555112



**Fig. S1.** c-Myc regulates glucose metabolism in TNBC. The  $IC_{50}$  for the GLS1 inhibitor CB-839 in the indicated TNBC cell lines were reported recently (1). We used this information to bin the cell lines into insensitive, low-sensitivity, medium-sensitivity, and high-sensitivity groups. (A) The Myc pathway score for each cell line is plotted against the sensitivity category. The Pearson's correlation coefficient is presented. (B) mRNA levels for TXNIP and its paralog ARRDC4 were determined in MDA-MB-231 cells in which we had knocked down c-Myc using a specific siRNA pool. (C and D) Levels of the indicated proteins were measured in MDA-MB-231 (C) or MDA-MB-157 (D) cells following 24-h treatment with the indicated dose of JQ1. (E) The indicated cell lines were treated with increasing concentrations of JQ1 for 24 h, and levels of TXNIP mRNA were determined by qPCR. JQ1 was used at 100, 200, and 500 nM. MCF7 and MDA-MB-361 cells are ER-positive cell lines, and MDA-MB-157 and MDA-MB-231 are TNBC cell lines. (F–I) Levels of the indicated metabolites in TN HCl-014 cells were determined following 24-h treatment with 100 nM JQ1: (F) Glucose 6-phosphate (G6P). (G) 3-Phosphoglycerate (3-PG). (H) 2-Phosphoglycerate (2-PG). (I) Glutamate. \* $P < 0.05$  as determined using *t* tests. *n*, number of independent biological replicates. In B and F–I, values are reported as means  $\pm$  SEM.

1. Gross MI, et al. (2014) Antitumor activity of the glutaminase inhibitor CB-839 in triple-negative breast cancer. *Mol Cancer Ther* 13(4):890–901.





1. van de Vijver MJ, et al. (2002) A gene-expression signature as a predictor of survival in breast cancer. *N Engl J Med* 347(25):1999–2009.
2. Cunha S, et al. (2014) The RON receptor tyrosine kinase promotes metastasis by triggering MBD4-dependent DNA methylation reprogramming. *Cell Reports* 6(1):141–154.
3. Curtis C, et al.; METABRIC Group (2012) The genomic and transcriptomic architecture of 2,000 breast tumours reveals novel subgroups. *Nature* 486(7403):346–352.

**Table S1. Myc gene signature score is inversely correlated with TXNIP**

Features	Myc activity score	TXNIP expression	Basal subtype
0230_184A1N4.CEL	0.053893	3.273637284	Yes
0231_184B5.CEL	0.20427	3.764303989	Yes
0232_600MPE.CEL	0.057588	4.151907479	
0233_AU565.CEL	0.55753	2.849166329	
0234_BT20.CEL	0.11256	2.37280326	Yes
0235_BT474.CEL	0.2072	4.01348457	
0236_BT483.CEL	0.11121	3.987326175	
0237_CAMA1.CEL	0.61071	2.401074761	
0240_HCC38.CEL	0.6544	1.391522472	Yes
0241_HCC70.CEL	0.032056	2.635696436	Yes
0242_HCC202.CEL	0.21535	4.110151672	
0243_HCC1143.CEL	0.27101	2.770793918	Yes
0244_HCC1187.CEL	0.48066	1.027664704	Yes
0245_HCC1395.CEL	0.40289	2.221118206	Yes
0246_HCC1419.CEL	0.12898	3.17229511	
0247_HCC1428.CEL	0.37848	4.008091807	
0248_HCC1500.CEL	0.27735	1.924921055	Yes
0249_HCC1569.CEL	1	2.554209951	Yes
0250_HCC1599.CEL	0.41077	3.014923564	Yes
0251_HCC1806.CEL	0.67017	2.606612601	Yes
0252_HCC1937.CEL	0.16583	2.512470139	Yes
0254_HCC1954.CEL	0.12074	2.637075297	Yes
0255_HCC2185.CEL	0.28045	4.557883171	
0256_HCC2218.CEL	0.53406	4.192826589	
0257_HCC3153.CEL	0.28253	2.850060709	Yes
0258_HS578T.CEL	0.42726	0.862854758	Yes
0259_LY2.CEL	0.61663	3.478641548	
0260_MCF12A.CEL	0.26836	4.707135732	Yes
0261_MCF10F.CEL	0	4.270999057	Yes
0262_MCF7.CEL	0.3572	3.983257016	
0263_MDAMB134VI.CEL	0.36319	3.66079438	
0264_MDAMB157.CEL	0.28879	2.453057844	Yes
0265_MDAMB175VII.CEL	0.060662	4.468485715	
0266_MDAMB231.CEL	0.59468	3.277613132	Yes
0267_MDAMB361.CEL	0.14122	4.48608463	
0268_MDAMB415.CEL	0.036587	4.33778991	
0270_MDAMB436.CEL	0.41037	3.150915083	Yes
0271_MDAMB453.CEL	0.4078	3.656637042	
0272_MDAMB468.CEL	0.35987	0.015370095	Yes
0273_SKBR3.CEL	0.46557	3.305554696	
0274_SUM44PE.CEL	0.126	3.461155314	
0279_SUM52PE.CEL	0.10918	3.881067976	
0280_SUM102PT.CEL	0.038143	4.803066399	Yes
0281_SUM149PT.CEL	0.23316	3.676752537	Yes
0282_SUM159PT.CEL	0.90924	2.640375006	Yes
0283_SUM185PE.CEL	0.2409	4.01152638	
0284_SUM225CWN.CEL	0.053279	4.710603629	
0285_SUM1315MO2.CEL	0.63499	1.20094254	Yes
0286_T47D.CEL	0.32144	2.796718678	
0287_UACC812.CEL	0.30471	3.739129287	
0288_UACC893.CEL	0.10114	2.558834297	
0289_ZR751.CEL	0.38406	4.258730651	
0290_ZR7530.CEL	0.049989	4.121688422	
0291_ZR75B.CEL	0.82359	3.601617	
0293_BT549.CEL	0.61104	1.989558963	Yes
0294_MCF10A.CEL	0.55842	3.074354649	Yes

Myc activity as measured by gene signature score was determined in the listed breast cancer cell lines using the procedures described in *Materials and Methods*. TXNIP expression levels in each cell line are listed, and whether the cell lines are of the basal intrinsic subtype is stated.