

Supplementary Information

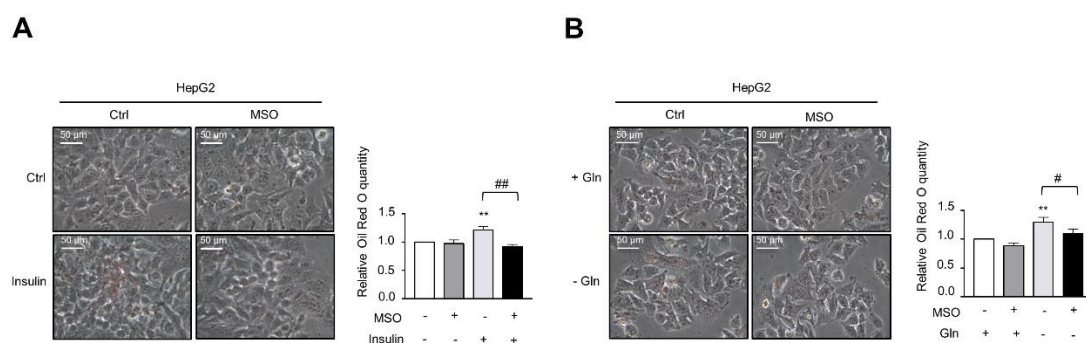


Figure S1. Inhibition of GS decreases insulin or glutamine deprivation-induced LD formation. (A) HepG2 cells were treated with 200 μ M GS inhibitor MSO for 30 min prior to 200 nM insulin treatment for 48 h. (B) HepG2 cells were treated with 200 μ M GS inhibitor MSO for 30 min prior to glutamine deprivation (- Gln) for 24 h. LD was stained with Oil Red O and normalized to protein concentrations for the quantitative analysis. Data represent means plus SEM. ** $p < 0.01$ compared to control cells. # $p < 0.05$ and ## $p < 0.01$ between indicated groups.

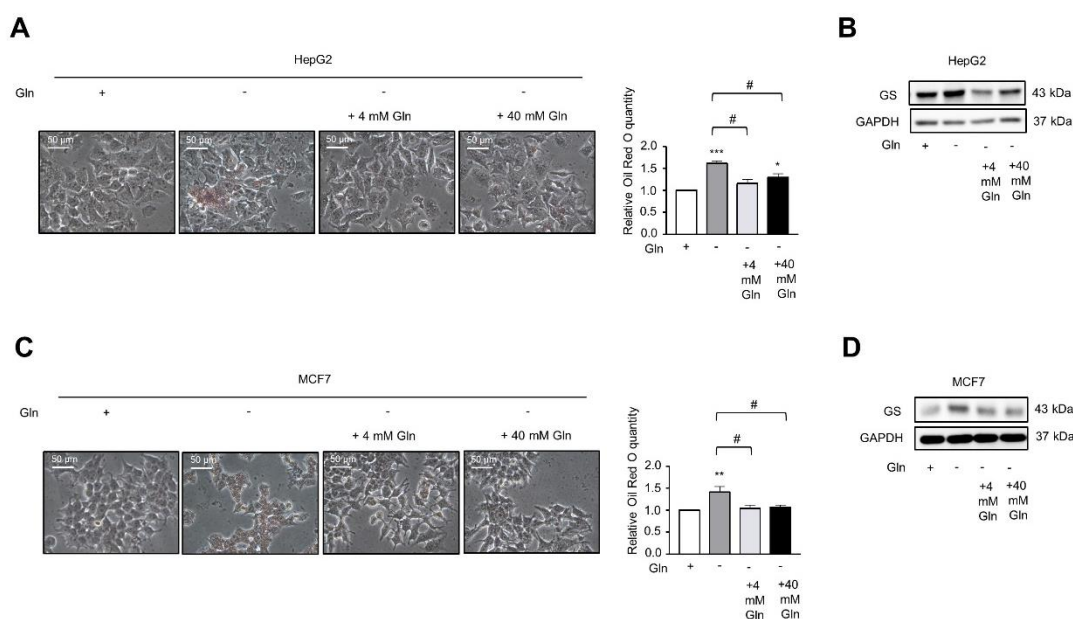


Figure S2. The addition of glutamine decreases glutamine deprivation-induced LD formation and GS expression.

(A and B) HepG2 cells were cultured under glutamine deprivation for 24 h and then added with 4 mM Gln or 40 mM Gln for 24 h. (C and D) MCF7 cells were cultured under glutamine deprivation for 16 h and then added with 4 mM Gln or 40 mM Gln for 8 h. (A and C) LD was stained with Oil Red O and normalized to protein concentrations for the quantitative analysis. (B and D) Cell lysates were analyzed by Western blot with specified antibodies. Data represent means plus SEM. * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$ compared to control cells. # $p < 0.05$ between indicated groups.

Table S1. Primer list

qRT-PCR primers

Gene	Primer sequence (5'-3')
ACC1	(F) CCCAGATTCTGCGTTTAAGA
	(R) CATCCACAATGTAAGCACCA
SREBP1	(F) CCATGGATTGCACTTTCGAA
	(R) GGCCAGGGAAGTCACTGTCTT
GS	(F) ACTTCGCAAGCGGCACCA
	(R) TTGGCTACACCAGCAGAAAA
GAPDH	(F) AAGGTCGGAGTCAACGGATTTG
	(R) CCATGGGTGGAATCATATTGGAA

ChIP primers

Gene	Primer sequence (5'-3')
GS	(F) CAAAAGTCGCTATGGGGAAAG
	(R) GCCACATGAAGCCTGTTTCT