



Supplementary Material

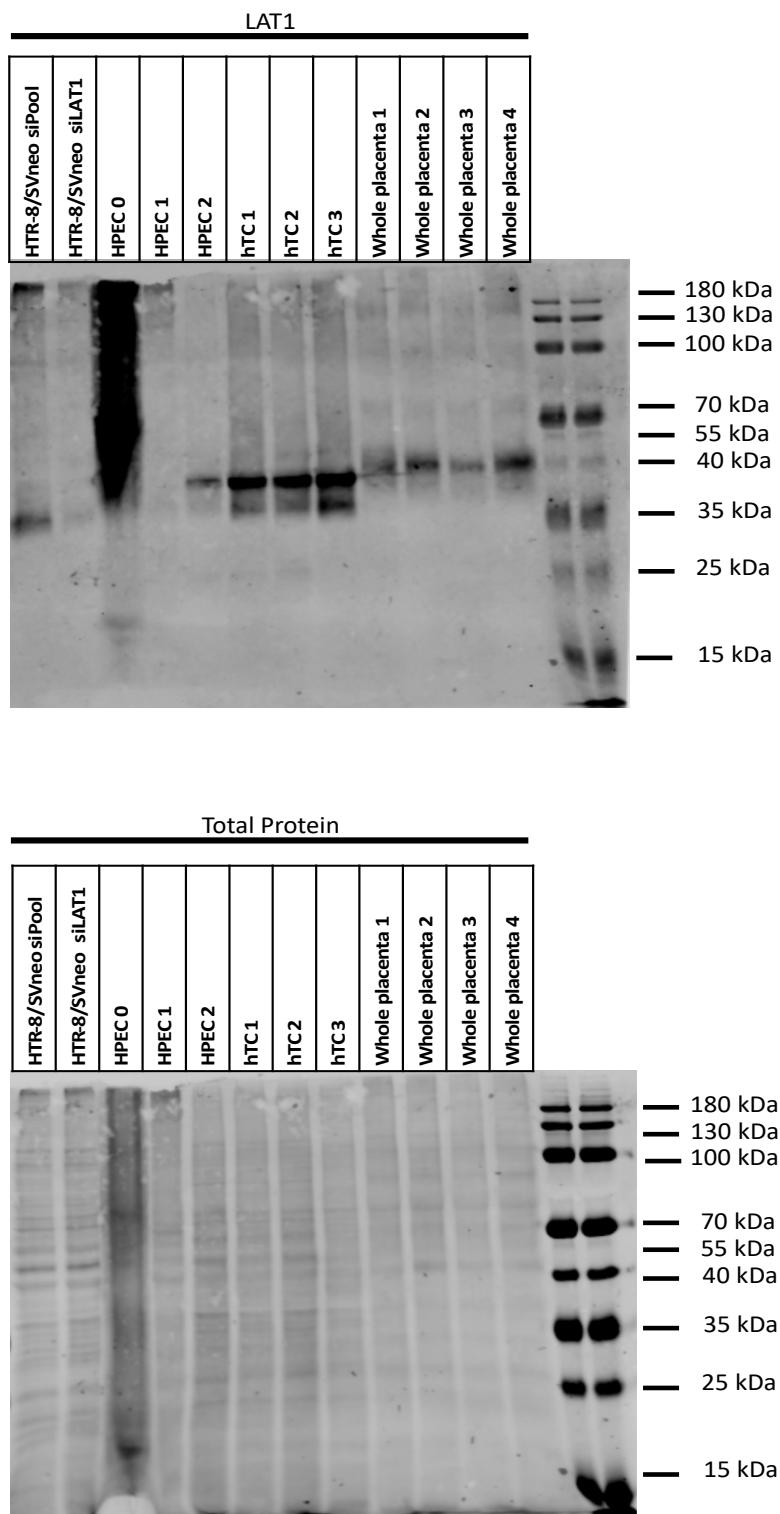


Figure S1. Total immunoblot of LAT1 protein in placental cells and whole placenta lysates.

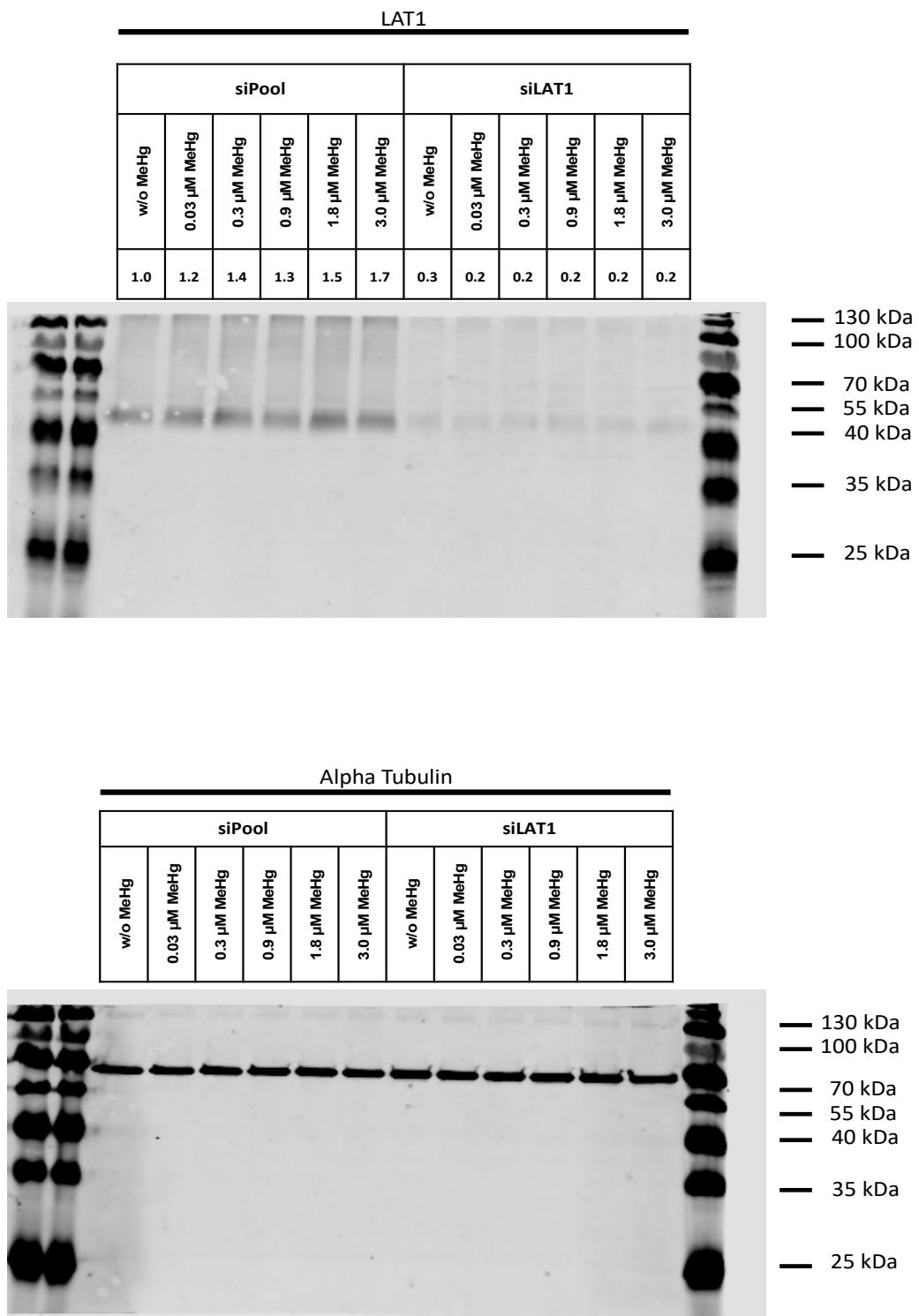


Figure S2. Total immunoblot to verify efficient siRNA-mediated gene knockdown of LAT1 compared to control cell.

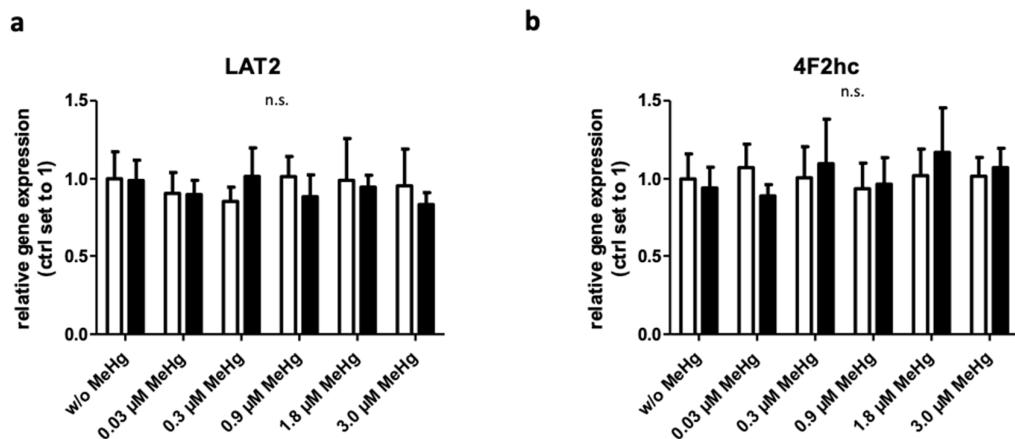


Figure S3. MeHg exposure does not affect mRNA expression of (a) LAT2 (SLC7A8) and (b) 4F2hc (SLC3A2). The data represent mean values \pm SD from three independent experiments, each performed in triplicate. White bars: siPool; Black bars: siLAT1. Statistical analyses used one-way ANOVA and S-N-K posthoc test ($p < 0.05$). $n = 3$; n.s.= non-significant.

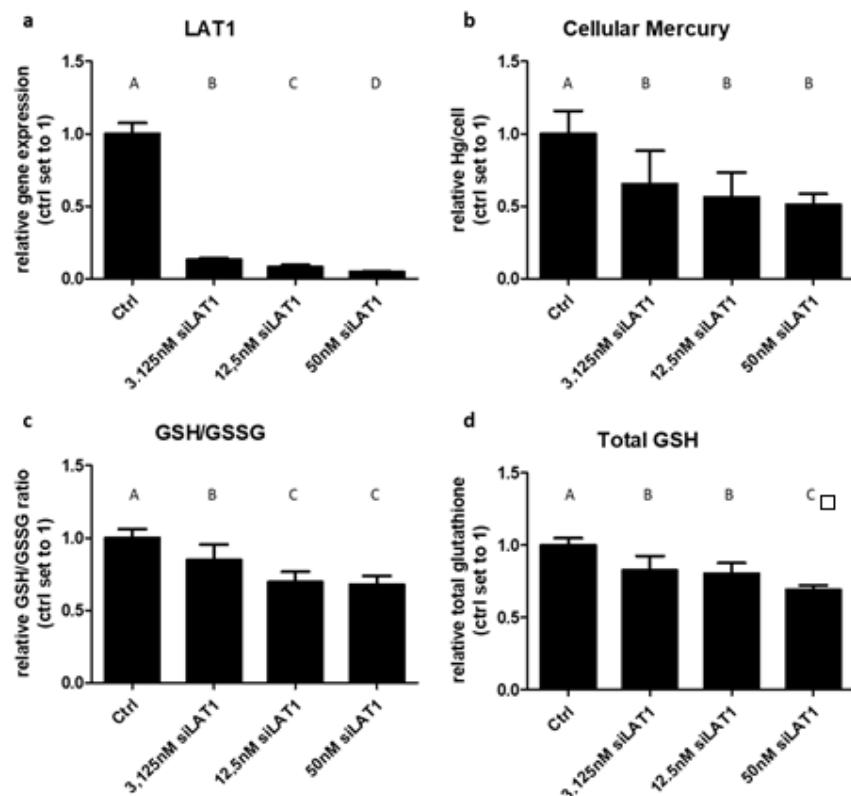


Figure S4. The amount of LAT1-specific siRNA affects LAT1 mRNA levels (a), cellular Hg content (b), GSH/GSSG ratio (c) as well as Total GSH (d). The data represent mean values \pm SD from three independent experiments, each performed in triplicate. Letters A–D denote homogeneous subgroups derived from one-way ANOVA and S-N-K posthoc test ($p < 0.05$). $n = 3$.

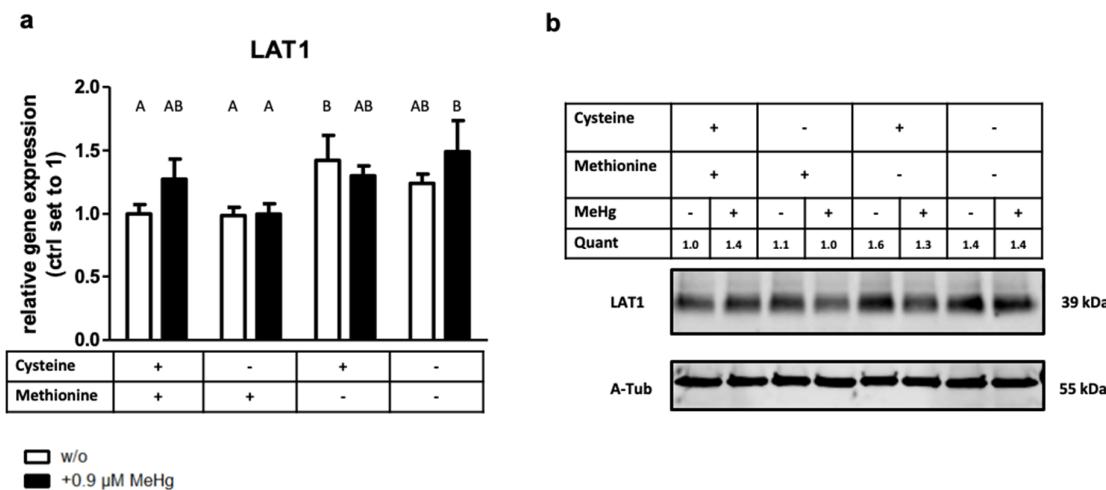


Figure S5. LAT1 mRNA (**a**) and protein levels (**b**) were determined in HTR-8/SVneo cells cultured for 24 h in media with different levels of cysteine (50 mg/L) and methionine (15 mg/L), either in the presence of 0.9 μ M MeHg or without MeHg (*w/o*). Letters A,B denote homogeneous subgroups derived from one-way ANOVA and S-N-K posthoc test ($p < 0.05$). $n = 3$; LAT1 protein expression was normalized to α -tubulin (A-tub) levels (representative immunoblot shown).

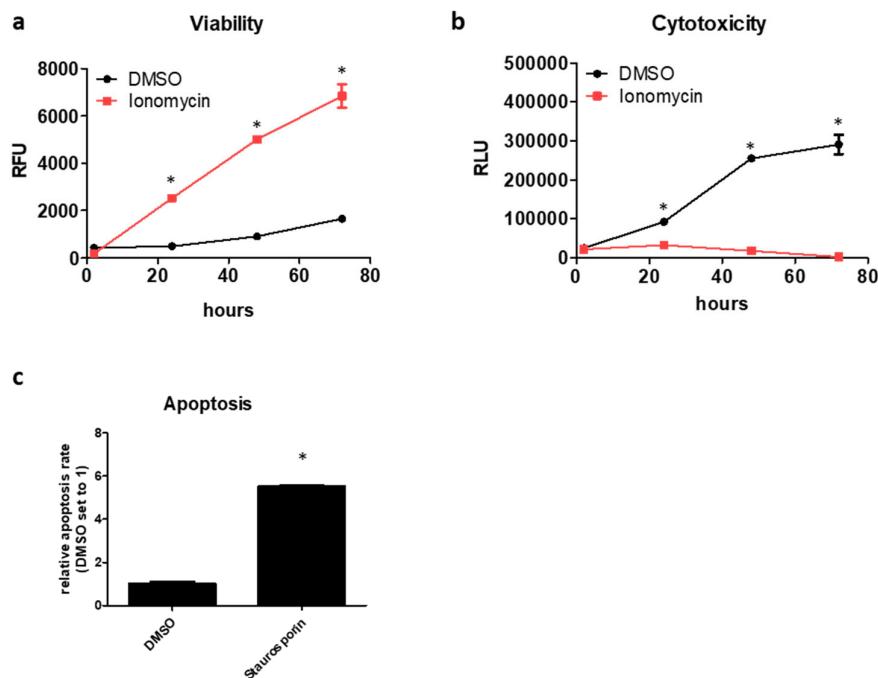


Figure S6. Positive controls of viability (**a**), cytotoxicity (**b**) and apoptosis (**c**). The data represent mean values \pm SD from three independent experiments, each performed in triplicate. * $p < 0.05$ from Student's *t*-test. 1% Dimethylsulfoxide (DMSO) in medium was used as control.