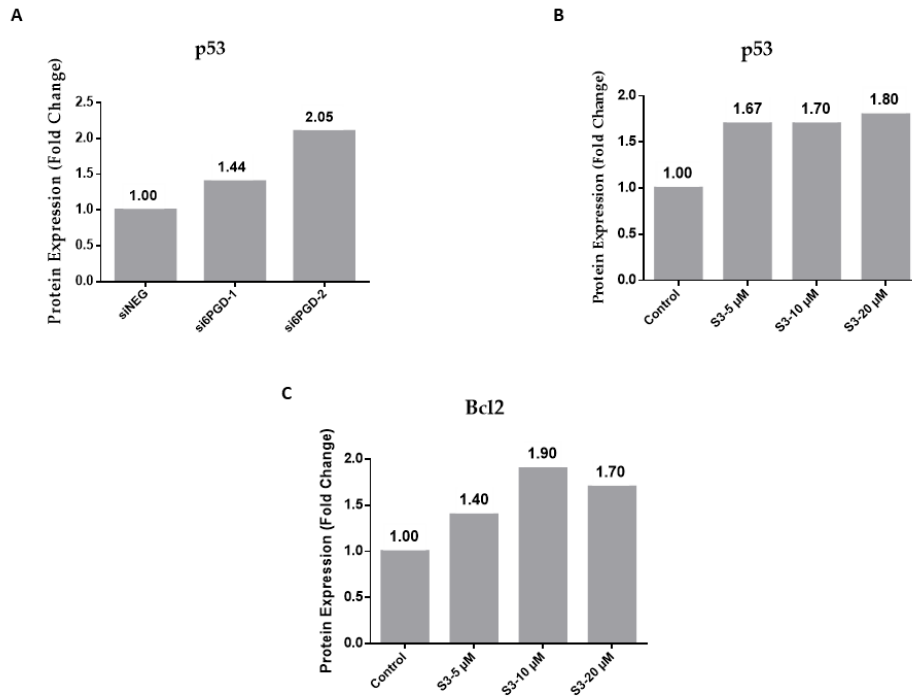


Supplementary Figure S1. Outline of Pentose Phosphate Pathway

The irreversible ox-PPP phase is catalyzed by G6PD, 6PGL (not shown) and 6PGD (6-phosphogluconate dehydrogenase). This phase produces NADPH, used for ROS detoxification, and synthesize fatty acids. The reversible nonoxidative pathway takes role a carbon exchange between PPP and glycolysis, either recycling the excess of pentoses or synthesizing ribose from glycolytic intermediates. The main enzymes involved in this branch are TKT and TALDO. CO₂, carbondioxide; E-4-P, erytrose-4-phosphate; F-6-P, fructose-6-phosphate; GSH, glutathione; GSSG, glutathione disulfide, G-3-P, glyceraldehyde-3-phosphate; G-6-P, glucose-6-phosphate; G6PD, glucose-6-phosphate dehydrogenase; NADPH, Nicotinamide adenine dinucleotide phosphate; R-5-P, ribose-5-phosphate; R5PI, ribulose-5-phosphate isomerase; R5PE, ribulose-5-phosphate epimerase; S-7-P, sedoheptulose-7-phosphate; TKT, transketolase; TALDO, transaldolase; X-5-P, xylulose-5-phosphate; 6PGD, 6-phosphogluconate dehydrogenase.



Supplementary Figure S2. Intensity ratio of western blots

Intensity ratio of each band on the western blot was calculated using ImageJ® Software (public domain National Institutes of Health, USA, <http://rsbweb.nih.gov/ij/>) and normalized to its corresponding actin. **A:** Intensity ratios of p53 in MCF7 cells after treatment of siNEG or siRNA targeting 6PGD. **B:** Intensity ratios of p53 in MCF7 cells after treatment with different doses of S3. **C:** Intensity ratios of Bcl2 in MCF7 cells after treatment with different doses of S3.