Supplementary table-1

Table showing mean (SD) of subcutaneous tumor weights and changes in tumor volume by treatment group for experiment-1.

Groups	Mean (SD) difference in Tumor volume (mm^3)	Mean (SD) Tumor weight (mg)
GFP siRNA	532.94 (260.94)	426 (187.83)
GFP siRNA+ carboplatin	352.34 (170.96)	212 (66.48)
NRF2 siRNA	249.17 (111.37)	238 (64.58)
NRF2 siRNA + carboplatin	58.78 (80.06)	110 (57.62)

Supplementary table-2

Table showing mean (SD) of subcutaneous tumor weights and changes in tumor volume by treatment group for experiment-2.

Groups	Mean (SD) difference in Tumor volume (mm^3)	Mean (SD) Tumor weight (mg)
GFP siRNA	375 (233.7)	327.5 (201.56)
GFP siRNA+ carboplatin	187.33 (76.66)	185 (67.16)
NRF2 siRNA	138.67 (128.24)	143.33 (90.74)
NRF2 siRNA + carboplatin	45 (33.81)	58.33 (21.37)

Supplementary Figures:

Figure S1: Bar graph showing increase in total glutathione levels, in A549 cells, after treatment with 5mM NAC for 1hr and 24hr. Total GSH levels in A549-Luc shRNA cells were significantly increased after NAC treatment for 1hr. However, A549-NRF2 shRNA cells demonstrated an increase in GSH levels only after 24hr of NAC treatment. "*"P<0.01, relative to LucshRNA cells; "**"P<0.01, relative to vehicle treated control shRNA cells.

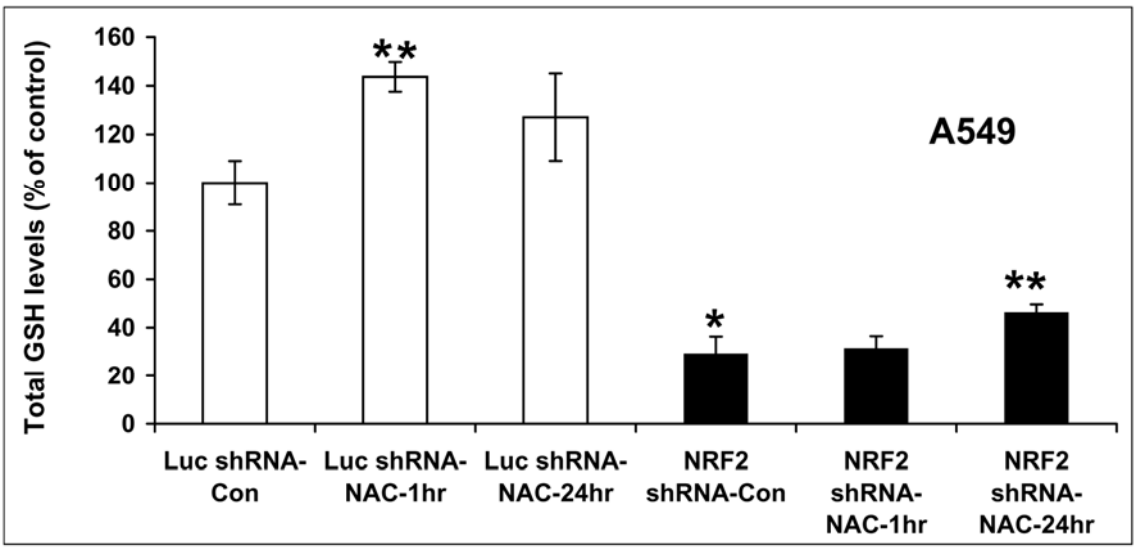

Figure S2: NAC protects lung cancer cells against cytotoxicity of carboplatin.
Pretreatment with NAC reversed the cytotoxicity of carboplatin in A549 (A) and H460 (B) cells and significantly increased the survival. Cells were pretreated with 5mM NAC for 2hr followed by treatment with carboplatin. Data is represented as percentage of viable cells (survival) relative to the vehicle treated control. Data are mean of 8 independent replicates, combined to generate the mean ± SD for each concentration. Representative experiments are shown.

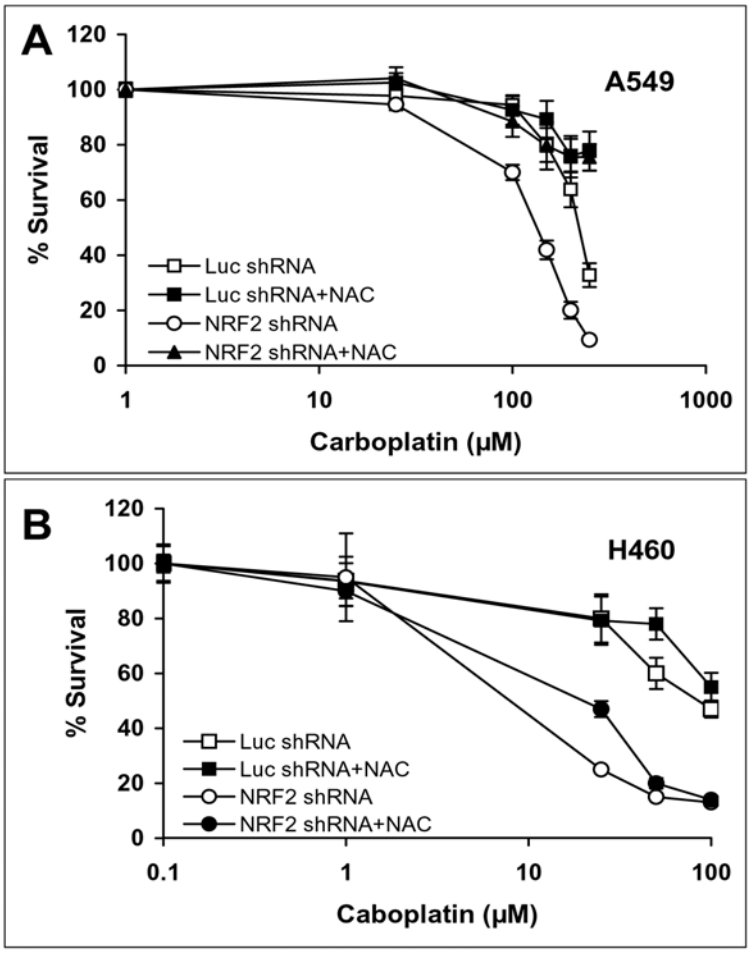

Figure S3: Immunoblot for active caspase-3 demonstrating that NRF2 inhibition sensitizes H460-NRF2shRNA cells to carboplatin and etoposide induced apoptosis.

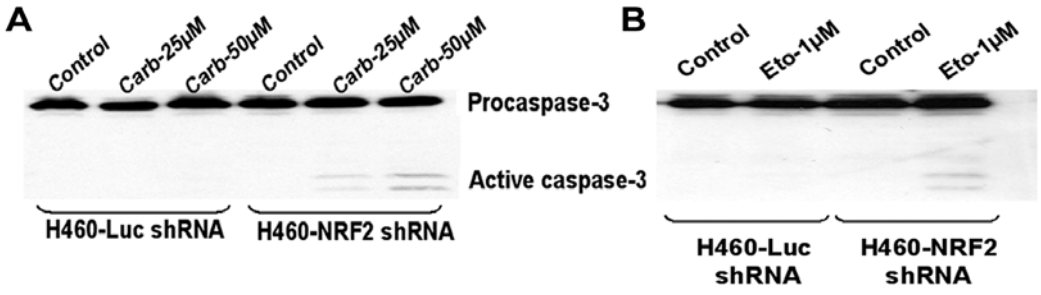

Figure S4: A dot plot showing the tumor weights by treatment group from second experiment. Tumor weights were significantly higher in the GFP tumors compared to the NRF2 tumors (ratio of tumor weights = 2.80, 95% CI: [1.71, 4.60], p = 0.0009) and lower in the siRNA + carboplatin treated tumors compared to the siRNA treated tumors (0.55, 95% CI: [0.33, 0.91], p= 0.033). The difference in tumor weights between treatment groups was not significantly different between NRF2 and GFP tumors (interaction p = 0.70).