

Figure S1. (A–H): The cell viability of Antioxidant components, Q, Q3G & AF4 on BEAS-2B cells after 24 h treatment. Experimental values presented as mean ± SD of $n = 3$ independent experiments by One Way Analysis of Variance was performed with Tukey's pairwise comparison. Means that share the same letter are not significantly different at $p \leq 0.05$. Abbreviation; AA: Ascorbic acid, AF4: apple peel flavonoid fraction 4, BC: β-carotene, FA: folic acid, LA: α-lipoic acid, NAC: N-acetyl cysteine, Q: quercetin, Q3G: Q-3-O-d-glucoside (Q3G).

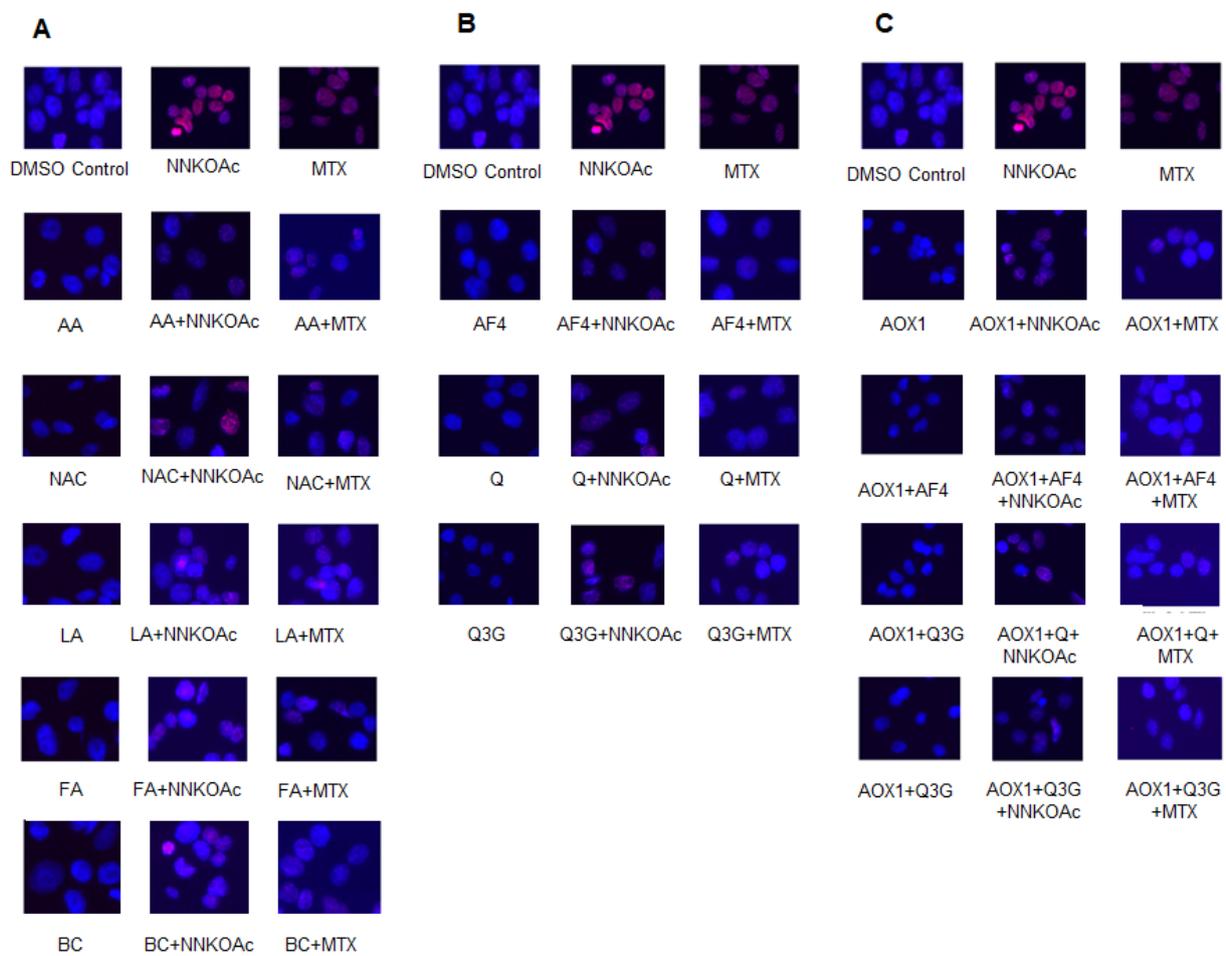


Figure S2. (A–C): BEAS-2B cells were exposed to either carcinogens alone or in combination with pretreatment of AOX1 alone and with combination of AF4, Q, and Q3G followed by immunofluorescence staining with γ -H2AX antibody and were captured by epifluorescence microscopy at 100x magnification. Nuclei were stained as blue and γ -H2AX foci (S 139) appeared as red. The image shown represents cells from three independent experiments. Abbreviation; AA: Ascorbic acid, AF4: apple peel flavonoid fraction 4, AOX1: antioxidant formulation, BC: β -carotene, FA: folic acid, LA: α -lipoic acid, MTX: methotrexate, NAC: N-acetyl cysteine, NNKOAc: 4-[(Acetoxymethyl)nitrosamino]-1-(3-pyridyl)-1-butanone, Q: quercetin, Q3G: Q-3-O-d-glucoside (Q3G).

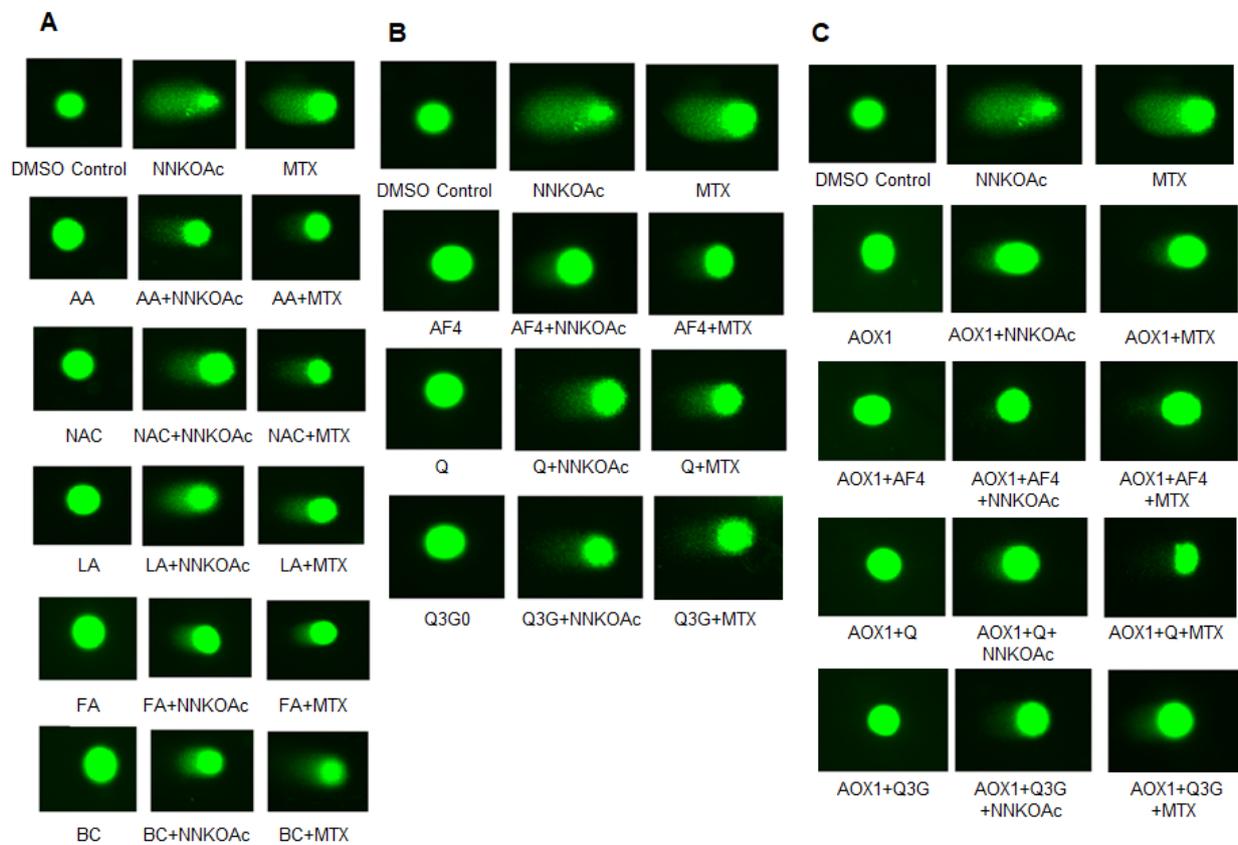


Figure S3. (A–C): DNA tail damage in BEAS-2B cells exposed to either carcinogen alone or in combination with pretreatment of AOX1 alone and with the combination of AF4, Q, Q3G, as assessed by comet assay. Abbreviation; AA: Ascorbic acid, AF4: apple peel flavonoid fraction 4, AOX1: antioxidant formulation, BC: β -carotene, FA: folic acid, LA: α -lipoic acid, MTX: methotrexate, NAC: N-acetyl cysteine, NNKOAc: 4-[(Acetoxymethyl)nitrosamino]-1-(3-pyridyl)-1-butanone, Q: quercetin, Q3G: Q-3-O-d-glucoside (Q3G).