



Supplement Figure 1.

**Supplemental Figure 1.** (a) Morphological changes in fucoidan (5 or 10 µg/mL) pretreated MSCs after treatment with *p*-cresol (500 µM; 72 h). Representative images are shown from one out of three independent experiments. Scale bar = 200 µm. (b) Determination of cell size (n=10 images/cultured dishes). Values represent mean ± SEM. \*\**p* < 0.01 vs control, #*p* < 0.05 and ##*p* < 0.01 vs *p*-cresol alone, \$\$\$*p* < 0.01 vs fucoidan (5 µg/mL) pretreated MSCs after treatment with *p*-cresol. (c) Fucoidan (5 or 10 µg/mL) pretreated MSCs after treatment with *p*-cresol (500 µM; 72 h), senescence was assessed by senescence-associated β-galactosidase (SA-β-gal) staining. SA-β-gal positive cells appear blue. Representative images are shown from one out of three independent experiments. Scale bar = 200 µm. (d) Cellular senescence was quantified as the number of SA-β-gal positive cells (n=10 images/cultured dishes). Values represent mean ± SEM. \*\**p* < 0.01 vs control, #*p* < 0.05 and ##*p* < 0.01 vs *p*-cresol alone, \$\$\$*p* < 0.01 vs fucoidan (5 µg/mL) pretreated MSCs after treatment with *p*-cresol. (e) Cell proliferation was assessed using a BrdU incorporation assay (n=3). Values represent mean ± SEM. \*\**p* < 0.01 vs control, ##*p* < 0.01 vs *p*-cresol alone, \$\$\$*p* < 0.01 vs fucoidan (5 µg/mL) pretreated MSCs after treatment with *p*-cresol.