

Table S1. Primers for RT-qPCR

Gene	Forward	Reverse
<i>β-actin</i>	CTCTTCCAGCCTTCCTTCCTG	CAGCACTGTGTTGGCGTACAG
<i>Cdkn1a</i>	TGTCCGTCAGAACCCATGC	AAAGTCGAAGTTCCATCGCTC
<i>Colq</i>	CTTCCTACGGGGAATCTGTGT	CAATGGCGTTTTGGGTGTTC
<i>Egr1</i>	GGTCAGTGGCCTAGTGAGC	GTGCCGCTGAGTAAATGGGA
<i>Fgl2</i>	AGATTGCTCTGACTACTACGCA	TGCCATGTTCTGGTGAAGTTG
<i>Fos</i>	GGGGCAAGGTGGAACAGTTAT	CCGCTTGGAGTGTATCAGTCA
<i>Gadd45a</i>	GAGAGCAGAAGACCGAAAGGA	CACAACACCACGTTATCGGG
<i>Jun</i>	TCCAAGTGCCGAAAAAGGAAG	CGAGTTCTGAGCTTTCAAGGT
<i>Myc</i>	GTCAAGAGGCGAACACACAAC	TTGGACGGACAGGATGTATGC
<i>Tmem61</i>	TGGTTGACATCCCCACTTACG	GGCATCCCTCGATCCACTT

Table S2. mRNA level of *Cdh1* and *Egr1* through RNA-Seq analysis

Gene ID	log ₂ (Chitotriose /CTL)	Q(Chitotriose /CTL)	Pathway Name
<i>Cdh1</i>	1.13	5.57E-05	ko05226//Gastric cancer; ko05216//Thyroid cancer; ko04371//Apelin signaling pathway; ko04514//Cell adhesion molecules(CAMs); ko05218//Melanoma; ko05219//Bladder cancer; ko04015//Rap1 signaling pathway; ko05200//Pathways in cancer; ko04390//Hippo signaling pathway; ko05100//Bacterial invasion of epithelial cells; ko05213//Endometrial cancer; ko04520//Adherens junction
<i>Egr1</i>	4.69	0	ko05166//Human T-cell leukemia virus 1 infection; ko04371//Apelin signaling pathway; ko04933//AGE-RAGE signaling pathway in diabetic complications; ko04928//Parathyroid hormone synthesis, secretion and action; ko04912//GnRH signaling pathway

Figure S1. Investigation of IC₅₀ value of doxorubicin against MDA-MB-231 cell

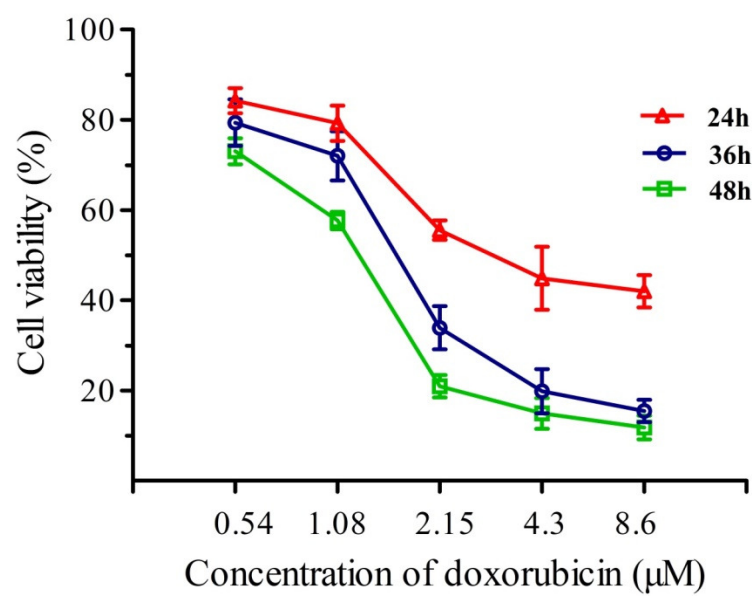


Figure S1

Figure S2. Effects of COS monomer and oligomers (DP 2-7) combined with doxorubicin on cell viability in MDA-MB-231 cells (n = 3 in each group). Asterisks (***) indicate significant differences at p -value < 0.001 compared with DOX group.

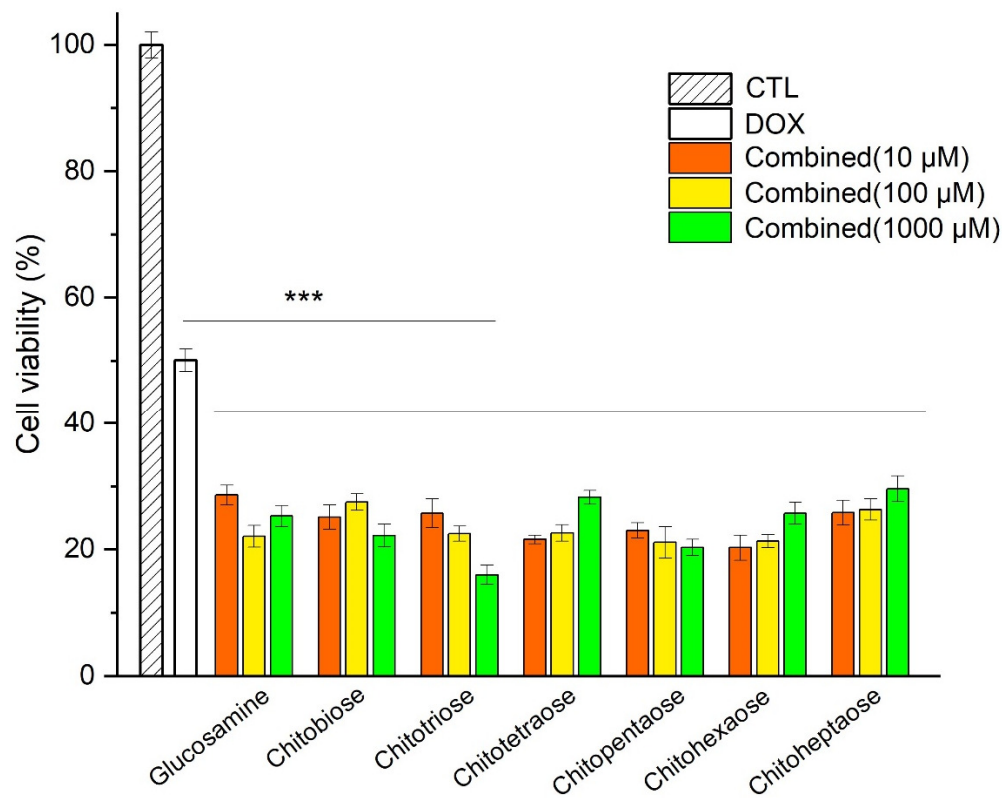


Figure S2

Figure S3. Original western blot images

