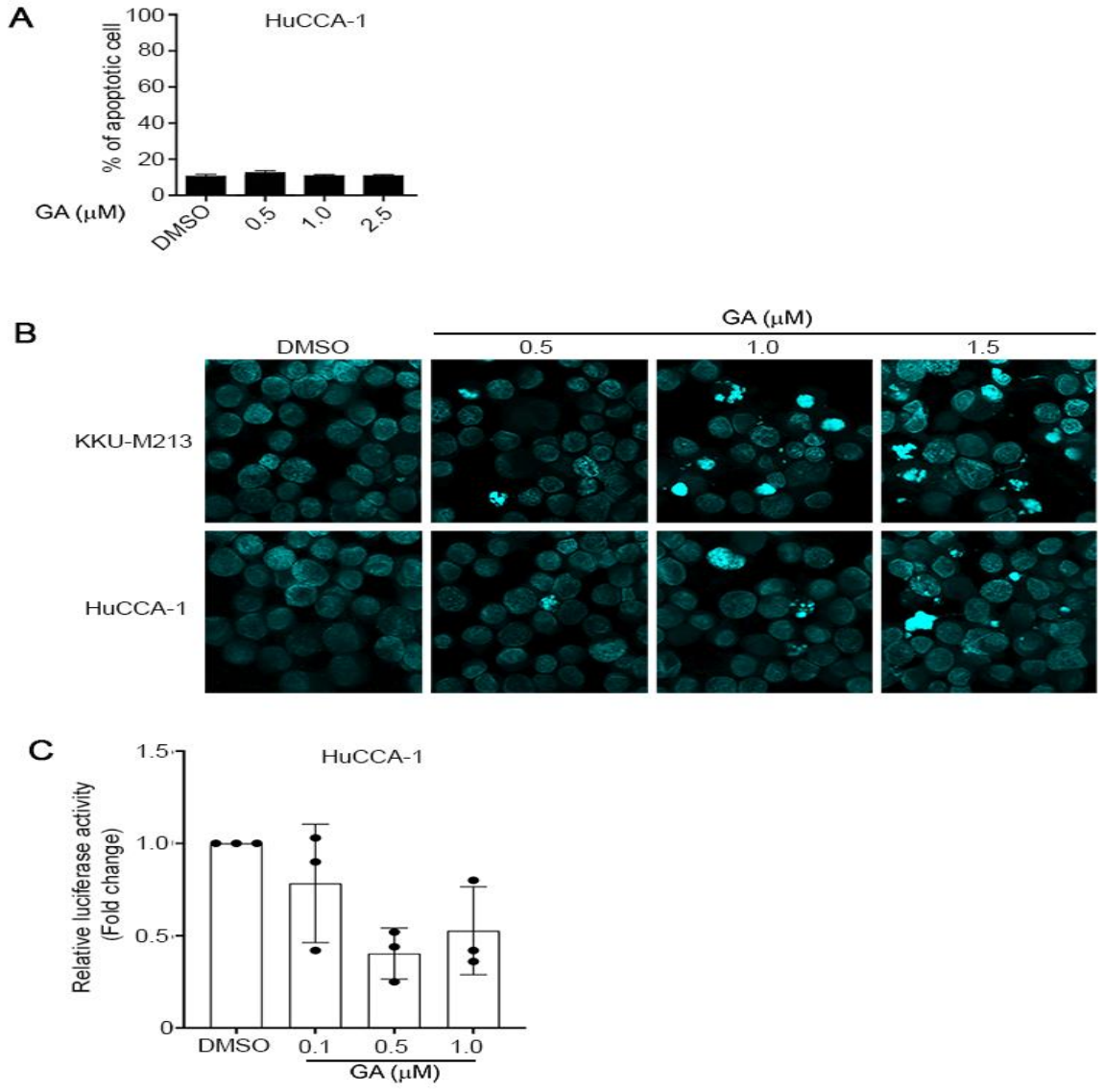
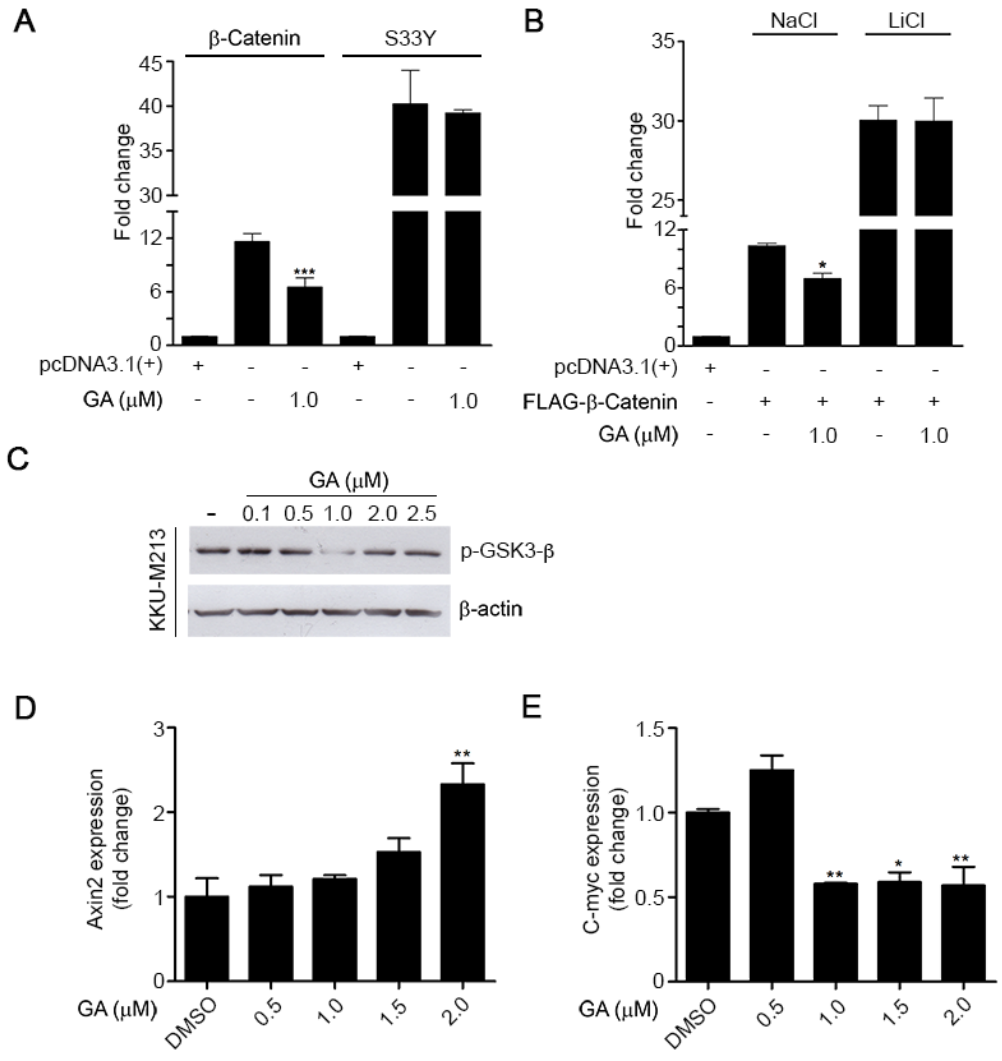
Supplementary Fig. 1

(**A**) The percentage of apoptotic cells in GA treated-HuCCA-1 for 24 h. (**B**) Effect of GA on nuclear fragmentation and chromatin condensation. Cells were treated with GA for 24 h. (**C**) Effect of GA on TCF/LEF-driven luciferase activity in HuCCA-1 cells at 24 h after treatment.



Supplementary Fig. 2

Luciferase activity of GA treated HEK 293T overexpressing mutant S33Y (**A**) and TOPflash in the presence of 40 mM LiCl or 40 mM NaCl for 16 h (**B**). Data is expressed as fold change compared with pcDNA3.1-transfected cells and represented as mean ± SD (n = 3). (**C**) Representative Western blot of p-GSK-3β on GA-treated KKU-M213 cells for 24 h and β-actin was used as a loading control. **(D-E)** mRNA expression of *Axin2* and *c-Myc* of GA treated KKU-M213 cells for 24 h.



Supplementary Table 1. The cytotoxic effect of GA on CCA cells, cells were treated with GA for 24, 48, and 72 h. Cell viability was evaluated by MTT assay and IC50 value was calculated

IC50 of GA (mM) ± SEM		
	KKU-M213 cells	**HuCCA-1 cells**
24 hrs	1.41 ± 0.28	2.98 ± 0.52
48 hrs	1.04 ± 0.42	1.69 ± 0.42
72 hrs	0.98 ± 1.14	1.43 ± 0.59

Supplementary Table 2. Sequences of primers

Genes	**Sequences of primers (5'à3')**
GRP78	**FW**: CCCGAGAACACGGTCTTTGA **RW**: TCAACCACCTTGAACGGCAA
IRE-1	**FW**: CGGCCTCGGGATTTTTGGAA **RW**: TTGAGCCTGTCCTCTTGCTG
XBP-1	**FW**: GGAAGCCAAGGGGAATGAAGT **RW**: GCTGCAGAGGTGCACGTAG
CHOP	**FW**: GGAACCTGAGGAGAGAGTGTTC **RW**: TGCCATCTCTGCAGTTGGAT
GAPDH	**FW**: ATGCCCCCATGTTCGTCATG **RW**: GCAGGAGGCATTGCTGAT