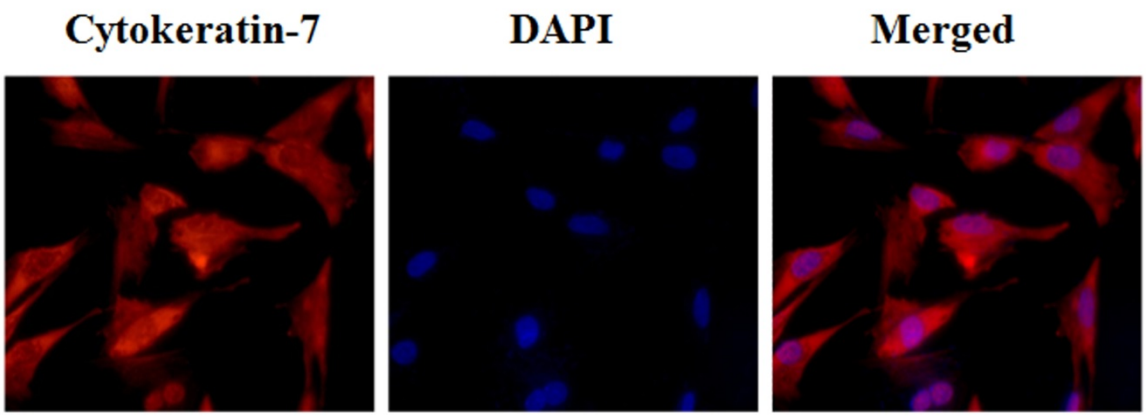
Supplementary Information

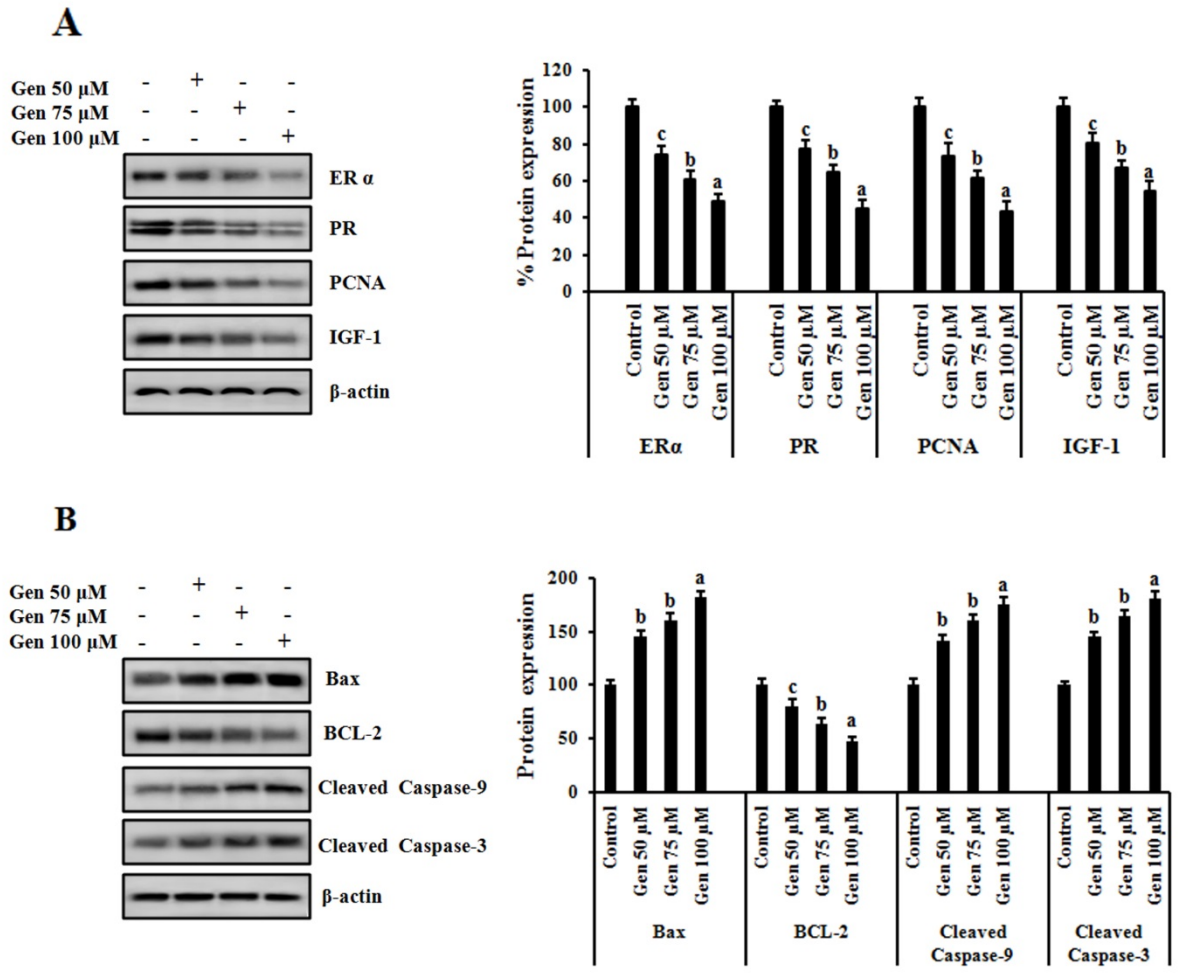
Supplementary Table 1:

Nucleotide sequence of primers used for real time –PCR.

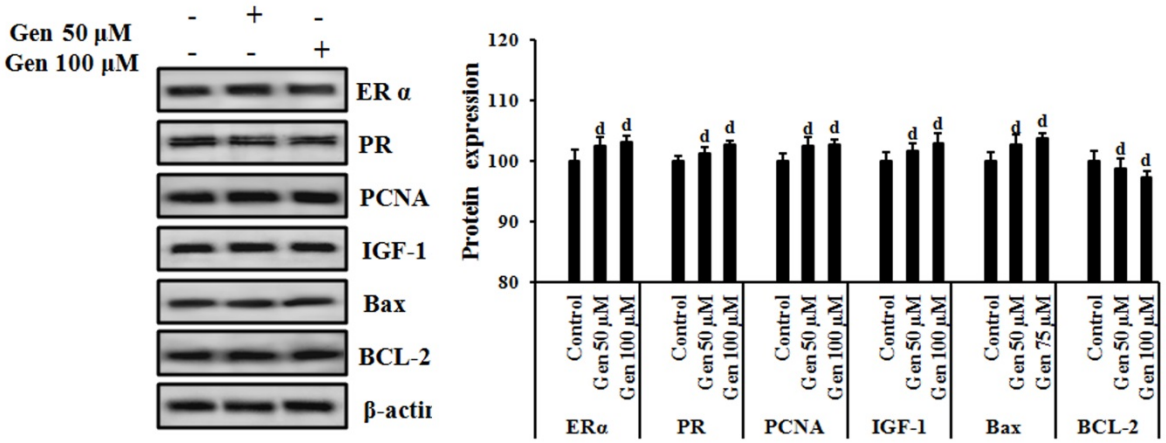
S.No.	Genes	Primer sequence
1.	ER α	Forward 5'-CCACCAACCAGTGCACCATT-3' Reverse 5'-GGTCTTTTCGTATCCCACCTTT-3'
2.	PR	Forward 5'-GATTCAGAAGCCAGCCAG-3' Reverse 5'-TGCCTCTCGCCCTAGTTGAT-3'
3.	PCNA	Forward 5'-TGGAGAACTTGGAAATGGAAA-3' Reverse 5'-GAACTGGTTCATTCATCTCTATGG-3'
4.	Bax	Forward 5'-CAGTTGAAGTTGCCGTCAGA-3' Reverse 5'-AACATGGAGCTGCAGAGGAT-3'
5.	BCL-2	Forward 5'-ACAGTTCCACAAAGGCATCC-3' Reverse 5'-ATGTGTGTGGAGAGCGTCAA-3'
6.	β-catenin	Forward 5'- CCAATATCAAGTCCAAGATC-3' Reverse 5'- AGCTGACCAGCTCTCTCTTC-3'
7.	Caspases-3	Forward 5'-TGTGAGGCGGTTGTAGAAGA-3' Reverse 5'-GGGCTCGCTAACTCCTCAC-3'
8.	GAPDH	Forward 5'- AGCCACATCGCTCAGACAC-3' Reverse 5'- AATACGACCAAATCCGTTGACT-3'



Supplementary Fig. 1: The human endometrial hyperplasial cells were characterized by the expression of cytokeratin-7, an epithelial marker, by immunofluorescence. Primary human endometrial hyperplasial cells were fixed, permeabilized, incubated with cytoketratin-7 antibody for overnight, and incubated with FITC-conjugated anti-mouse antibody for 1 h. The preparations were washed and counterstained with DAPI and cell images were grasped using a Nikon fluorescence microscope at 40X.



Supplementary Fig. 2: Effect of genistein on expression of **(A)** proliferation markers and **(B)** apoptotic marker in human primary endometrial hyperplasial cells by western blotting. Cells were treated in dose dependent manner with vehicle, 50, 75 and 100 µM of genistein for 48 h. β-actin was used as internal control to correct loading error. Densitometric quantitation of protein expression levels is shown as % changes. ±S.E.M. p values are a- $p<0.001$, b- $p<0.01$, c-$p<0.05$ and d-$p>0.05$ versus control.



Supplementary Fig. 3: Effect of genistein on expression of proliferation markers and apoptotic marker in human primary normal endometrial cells by western blotting. Cells were treated with vehicle, 50, and 100 µM of genistein for 48 h. β-Actin was used as internal control to correct loading error. Densitometric quantitation of protein expression levels is shown as % changes. Data are expressed as mean of three different experiments on normal samples; ±S.E.M. p values are a- $p<0.001$, b-$p<0.01$, c-$p<0.05$ and d-$p>0.05$ versus control