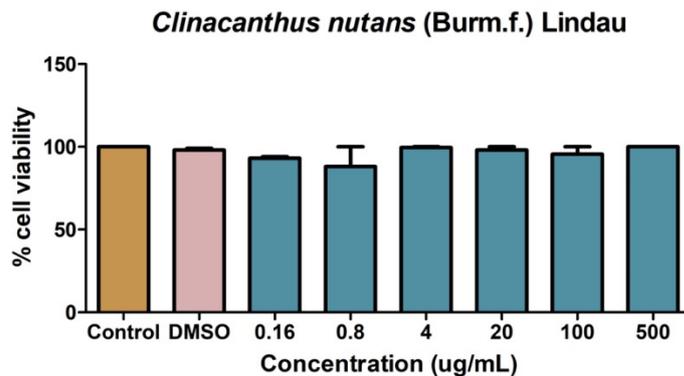
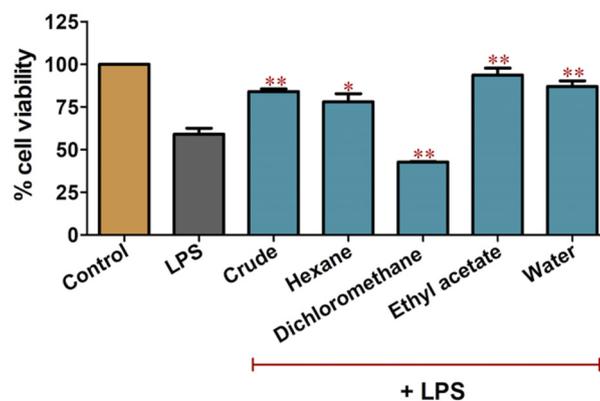


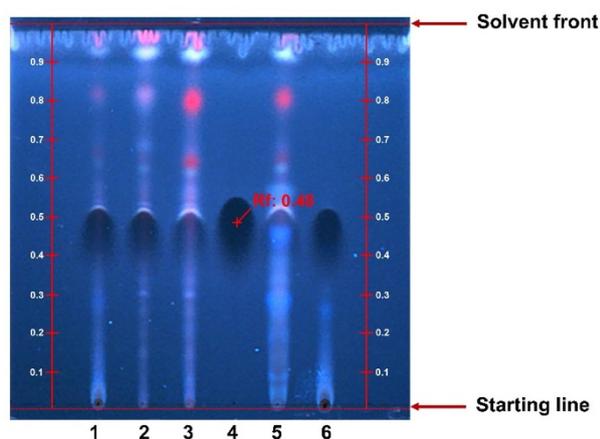
## Supplementary data



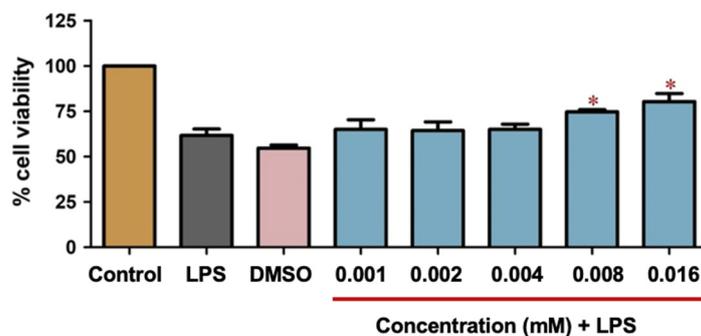
**Figure S1 The cytotoxicity effect of *C. nutans* extract on CPAE cells.** The cells were plated the day prior to the experiment at a density of approximately 7000 cells/well in the 96-well plates. At the time of experiment, the crude extract was prepared in serial concentrations ranged from 0.16-500  $\mu\text{g/mL}$  and added to the CPAE cells (100  $\mu\text{L}$  per well). After 24 hours of treatment, the cells were investigated for the cell viability by using PrestoBLUE™ cell viability reagent. The data was analyzed as the percentage of cell viability where the non-treatment control was set as 100%.



**Figure S2 The effect of *C. nutans* extract fractions to rescue the LPS-induced cell death.** The cells were plated the day prior to the experiment at a density of approximately 7000 cells/well in the 96-well plates. The cell viability after treatment with LPS (10 ng/mL) in the presence or absence of *C. nutans* extract fractions (100  $\mu\text{g/mL}$ ) at 24 hours. After 24 hours of treatment, the cells were investigated for the cell viability by using PrestoBLUE™ cell viability reagent. The data was analyzed as the percentage of cell viability where the non-treatment control was set as 100%.



**Figure S3** TLC chromatogram of *C. nutans* fractions (1); hexane fraction (2); dichloromethane fraction (3); glyceryl 1,3 distearate, Rf 0.48 (4); ethyl acetate fraction (5); and water fraction (6) at UV 366 nm.



**Figure S4** The effect of glyceryl 1,3 distearate to rescue the LPS-induced cell death and inflammation in CPEA cells. The cells were plated the day prior to the experiment at a density of approximately 7000 cells/well in the 96-well plates. At the time of experiment, LPS (10 ng/mL) was treated to the cells in presence or absence of glyceryl 1,3 distearate was prepared in serial concentrations ranged from 0.001-0.016 mM and added to the CPEA cells (100  $\mu$ L per well). After 24 hours of treatment, the cells were investigated for the cell viability by using PrestoBLUE™ cell viability reagent. The data was analyzed as the percentage of cell viability where the non-treatment control was set as 100%.

**Table S1** Antibacterial activity of glyceryl 1,3-disterate against *E. coli* using agar disc diffusion method. The clear zone was measured and summarized in the table (mean  $\pm$  standard deviation) where the gentamycin was used as the positive control.

Herb Extract	Clear Zone (mm)
<i>Clinacanthus nutans</i> (Burm.f.) Lindau (500 mg/mL)	7 $\pm$ 0.00
Glyceryl 1,3-disterate (1.6 mM)	0.00
Gentamycin (2 mM)	20.33 $\pm$ 1.52

**Table S2** List of real-time PCR primers.

Genes	Forward primer (5'→3')	Reverse primer (5'→3')
<i>IL1<math>\beta</math></i>	GAGGCTGATGGCCCTAAACA	GTAGGCACTGTTCCCTCAGCTT
<i>IL6</i>	CACCCCAGGCAGACTACTTC	CCCAGATTGGAAGCATCCGT
<i>CXCL3</i>	ATACAGAGCGTGAAGGTGACG	ATGGGAGCTTCAGGGTTGAG
<i>CXCL8</i>	ATTCCACACCTTTCCACCCC	ACCCACTTTTCCTTGGGGTT
<i>GADPH</i>	GCTGCCCAGAATATCATCCCT	GCAGGTCAGATCCACAACAG