

Supporting information

A Self-Healable Metallohydrogel for Drug Encapsulations and Drug Release

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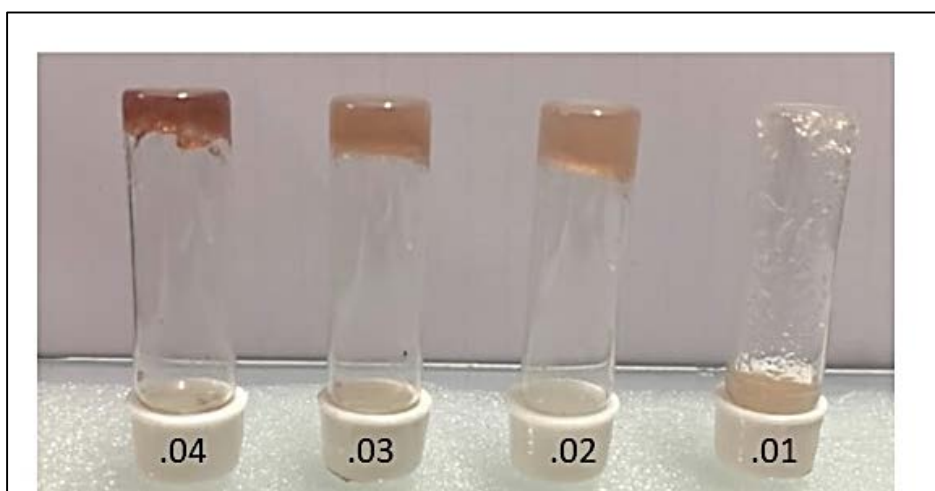


Figure S1: Optical images of inverted vial metallogel indication variation of concentration for the formation of stable gel.

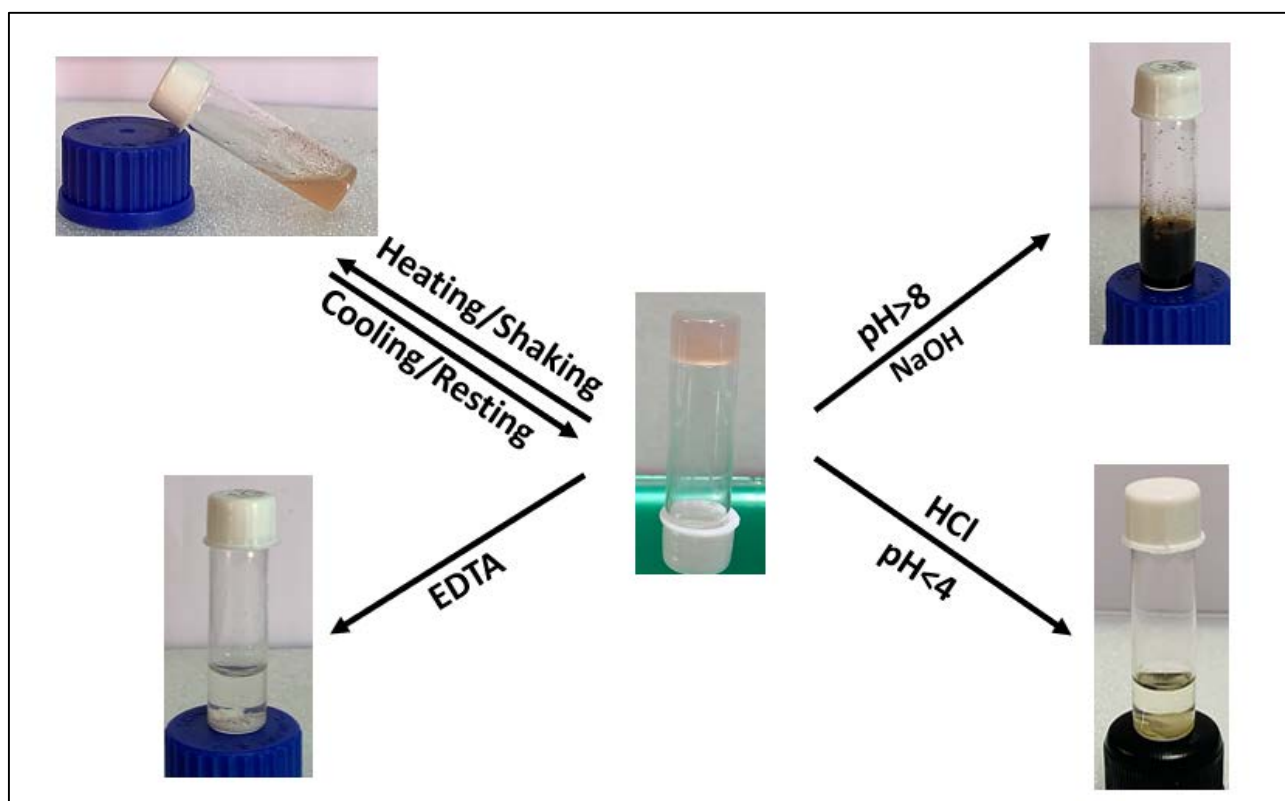


Figure S2: Diverse stimuli-responsive nature of the metallogel

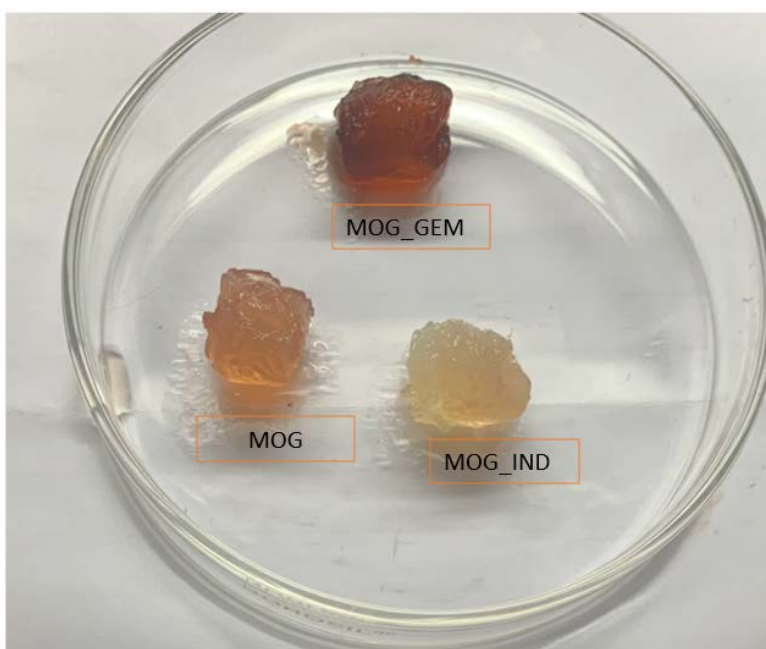


Figure S3 Optical image of the MOG and drug encapsulated MOGs

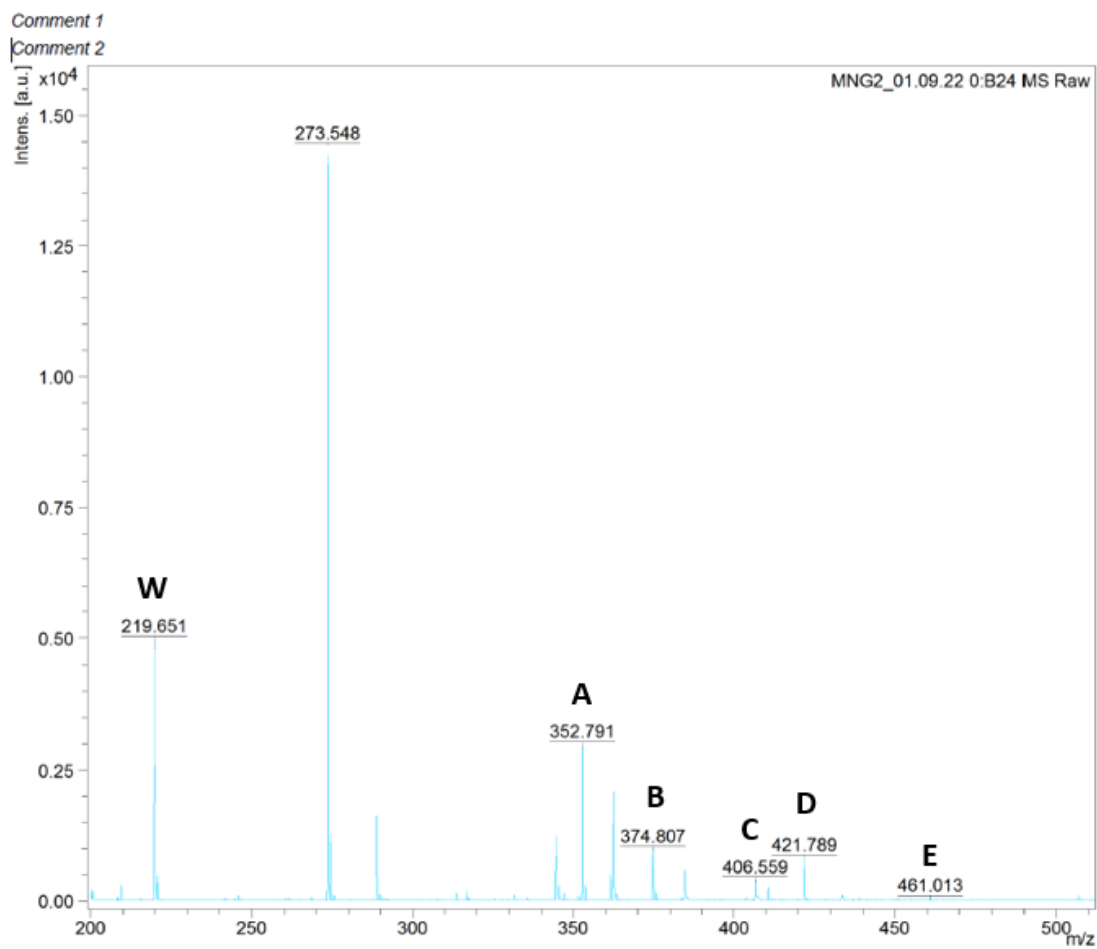
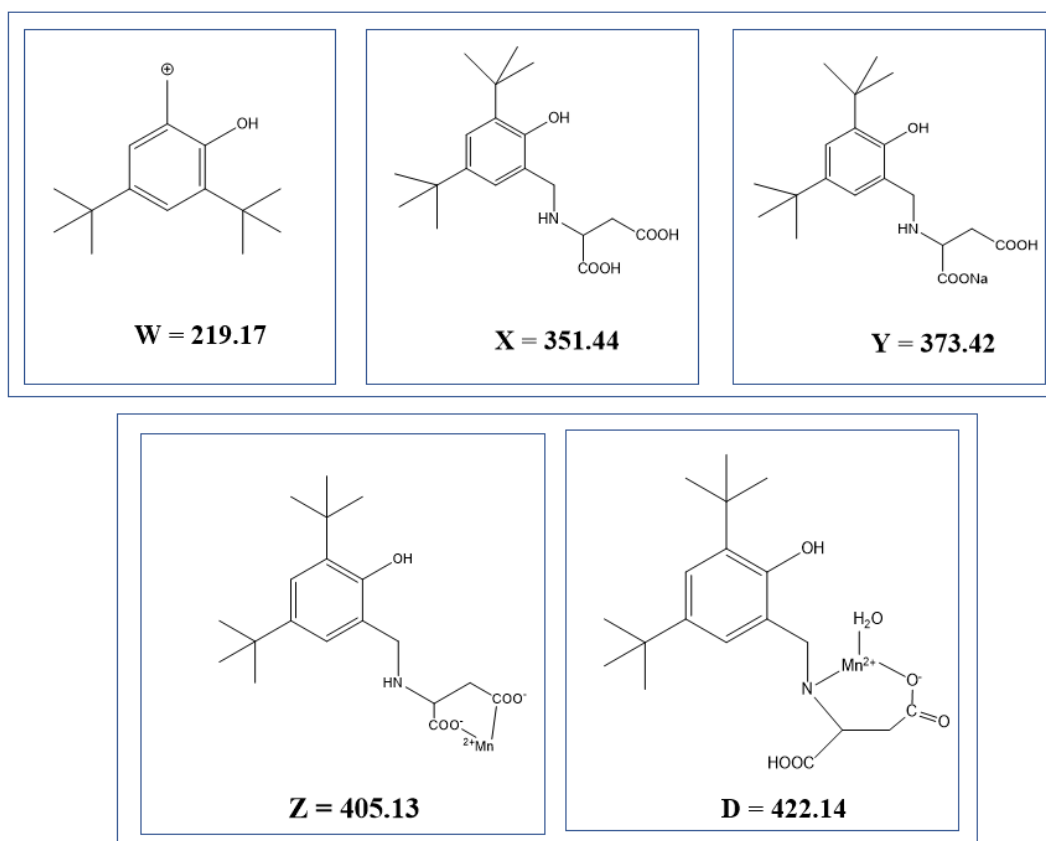
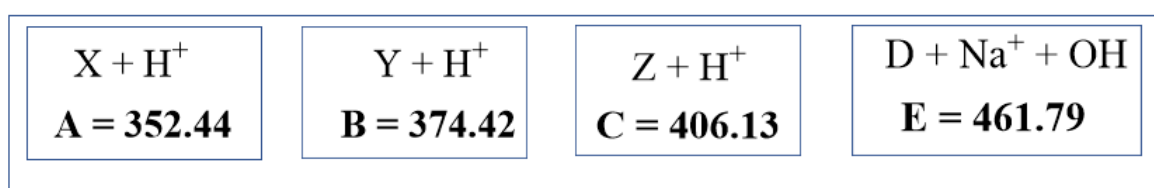


Figure S4 MALDI-TOF spectra of MOG



(a)



(b)

Figure S5 (a) and (b) Index peak analysis of the MALDI-TOF spectra of MOG ((Positive ion detection mode)*

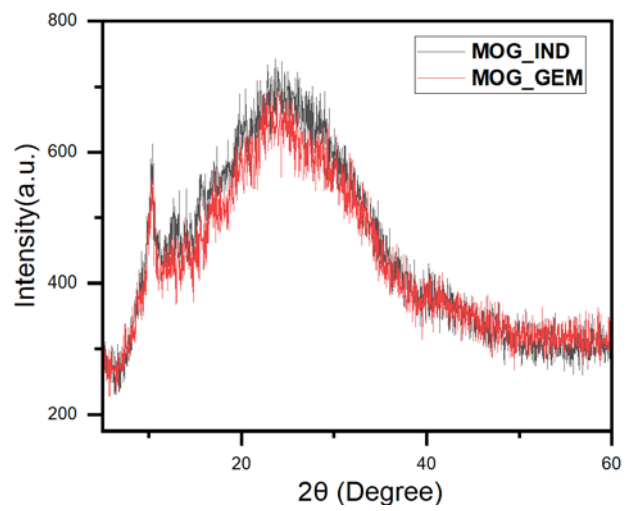
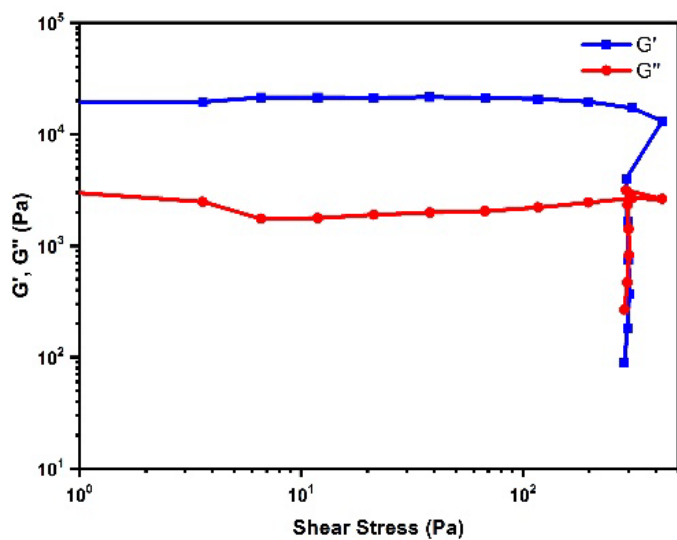
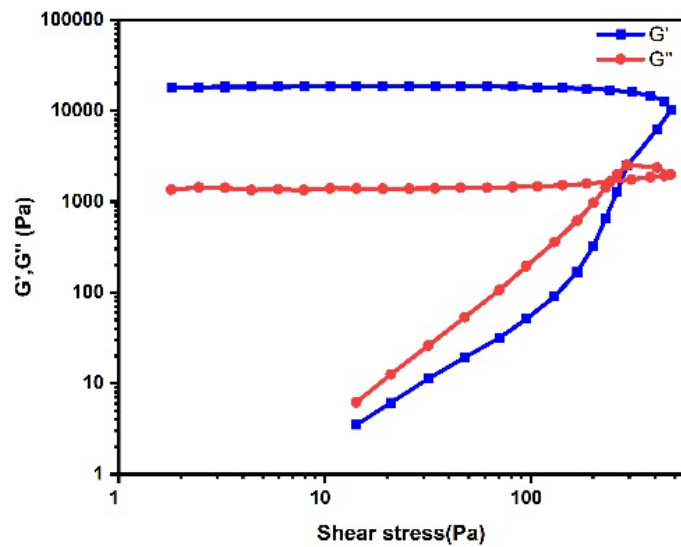


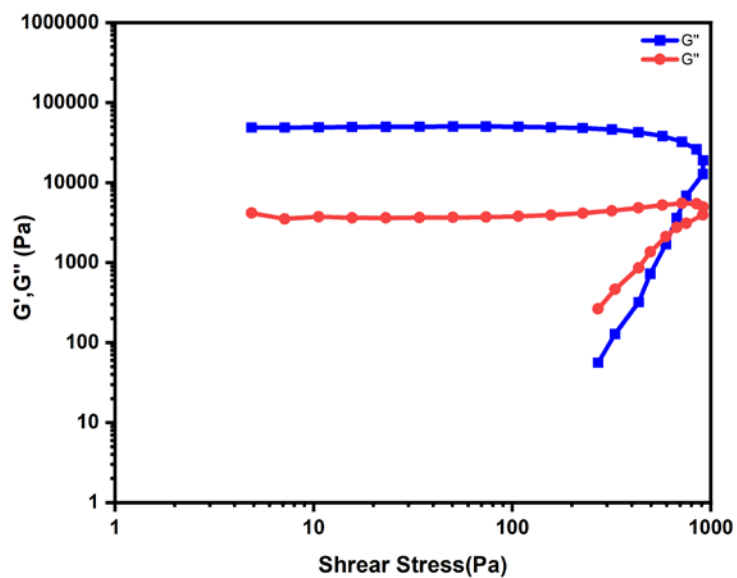
Figure S6 Powder X-ray diffraction pattern of the drug encapsulated metallogels.



(a)



(b)



(c)

Figure S7 Amplitude sweep experiments of (a) MOG (b) MOG_IND (c)MOG_GEM

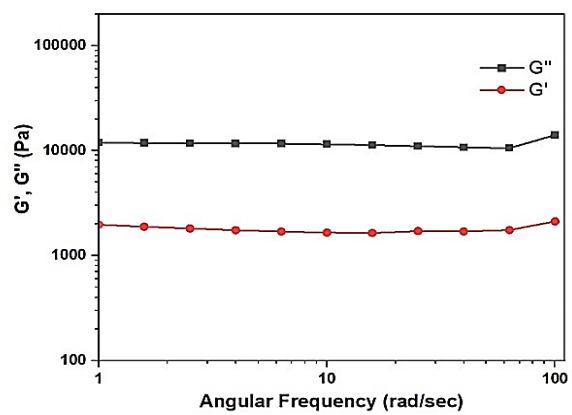


Figure S8 Frequency sweep experiment of the MOG at stain 2% strain

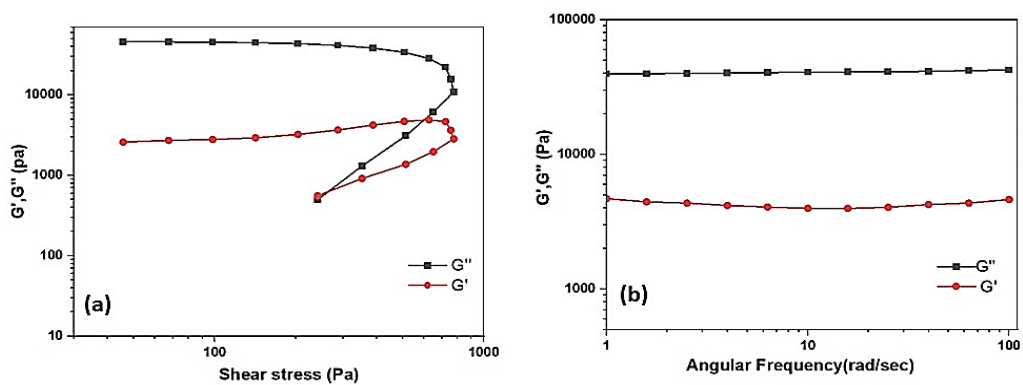


Figure S9 (a) Frequency sweep and (b) amplitude sweep of healed MOG

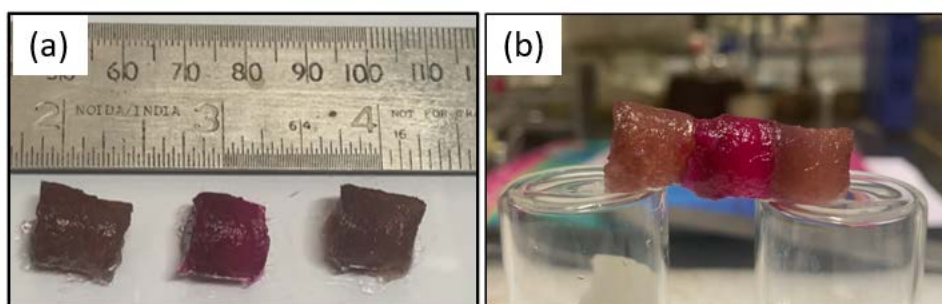


Figure S10 (a) Dye doped and undoped gel block (b) bridge constructed by alternative undoped and dye doped gel block.

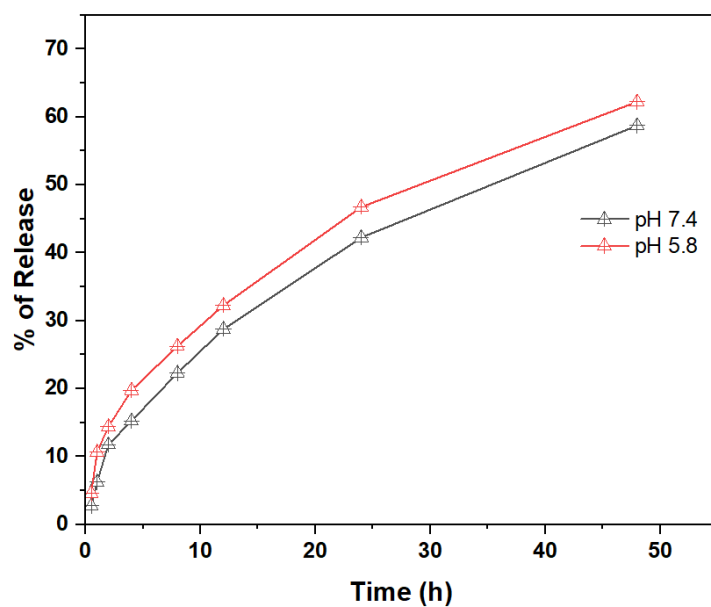


Figure S11 Drug release profiles, at pH 7.4 and 5.8, of indomethacin sodium salts from the MOG_IND

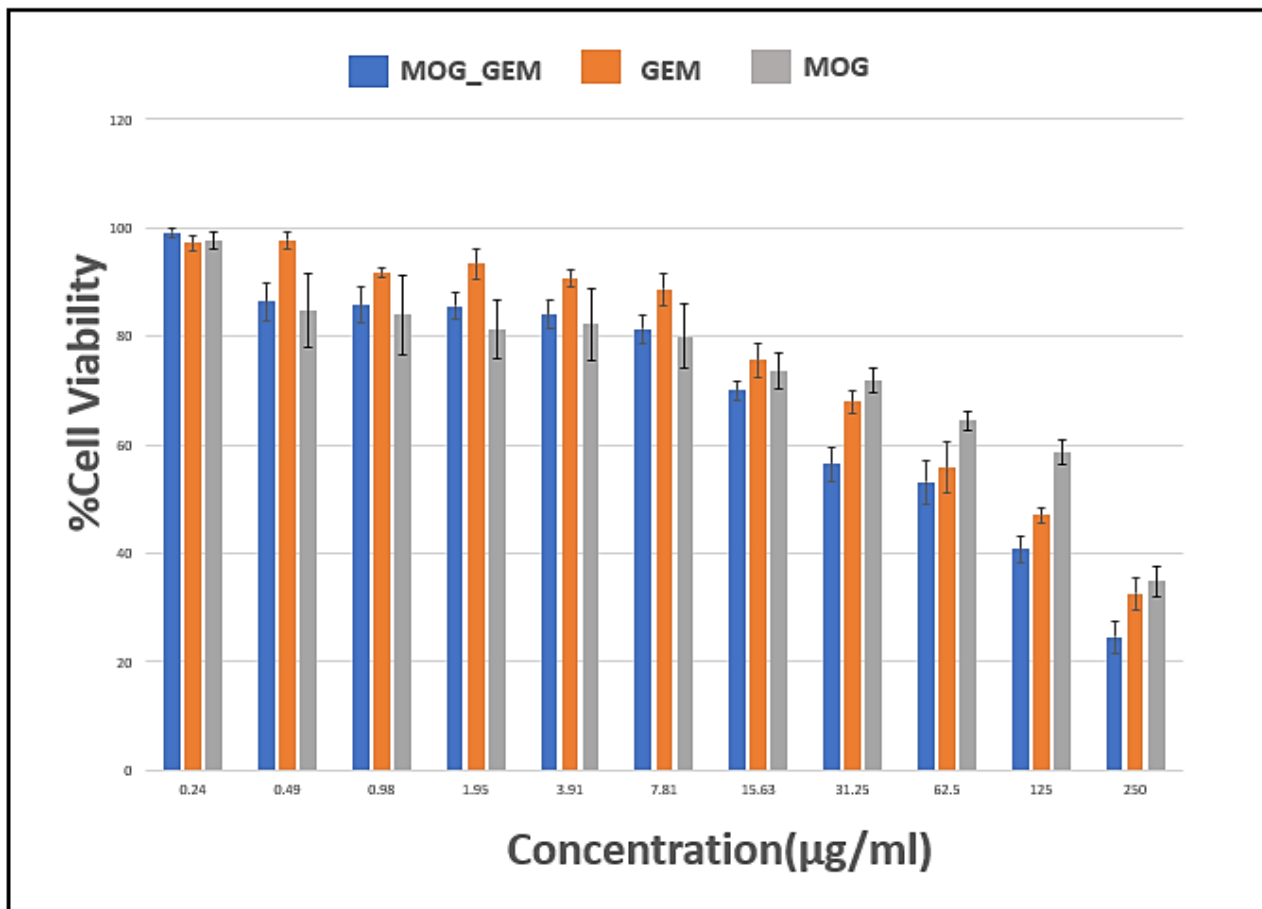


Figure S12 Cytotoxicity study in L929 cell by MTT assay after 24 h incubation at 37 °C of MOG_GEM, GEM and MOG

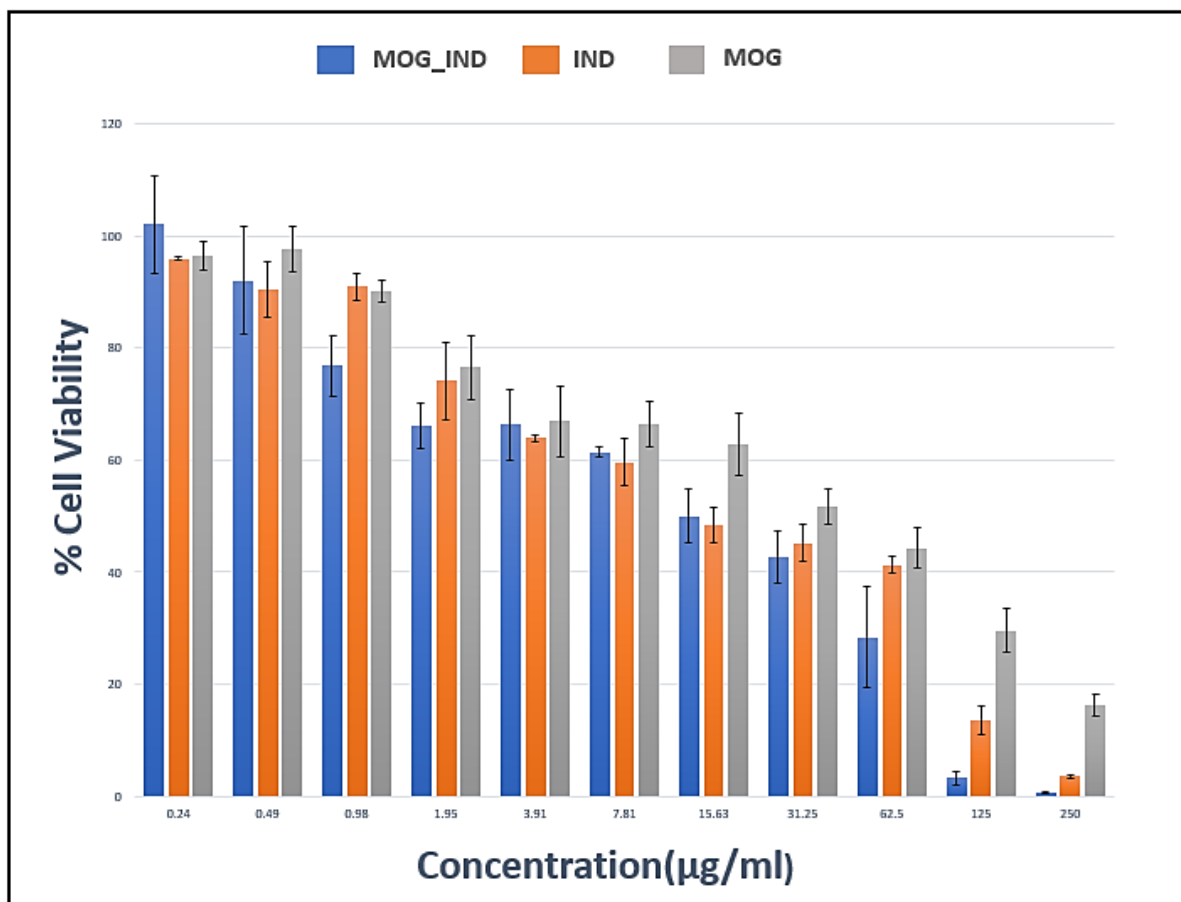


Figure S13 anti-inflammatory study in Raw 264.7 cell by MTT assay after 24 h incubation at 37 °C of MOG_IND, IND and MOG

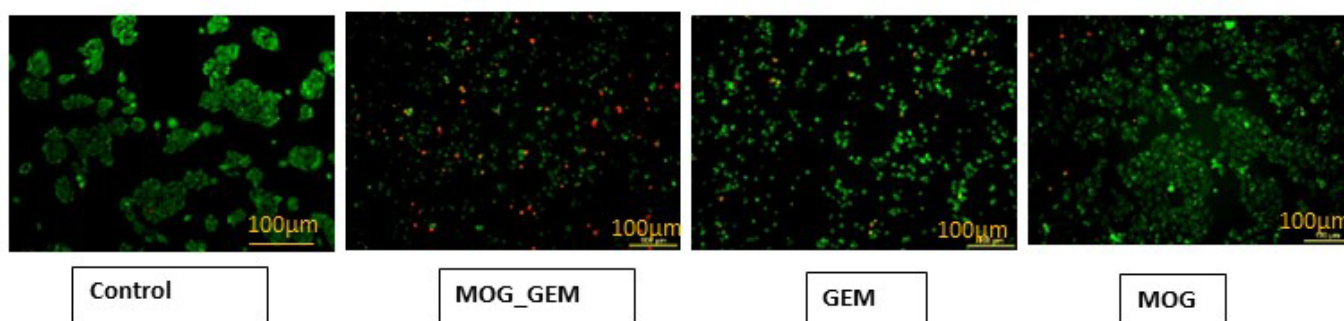


Figure S14 Live dead assay of MDA-MB-468 cell after 48 hours' treatment with MOG_GEM, GEM, MOG

Table S1. EDAX analysis of the MOG

Element	Weight %	Atomic %	Net Int.	Error %	Kratio	Z	A	F
C K	25.88	34.01	156.26	7.38	0.1703	1.0710	0.6146	1.0000
N K	25.16	28.35	67.98	12.53	0.0859	1.0419	0.3279	1.0000
O K	33.71	33.25	165.93	10.50	0.1062	1.0167	0.3100	1.0000
MnK	15.25	4.38	33.79	18.39	0.1159	0.7338	1.0092	1.0263

***Maximum deviation of assigned peaks for S6 from experimented value is ± 0.50 Peak at $m/z=273.49$ appeared due to the presence of DHB matrix)**