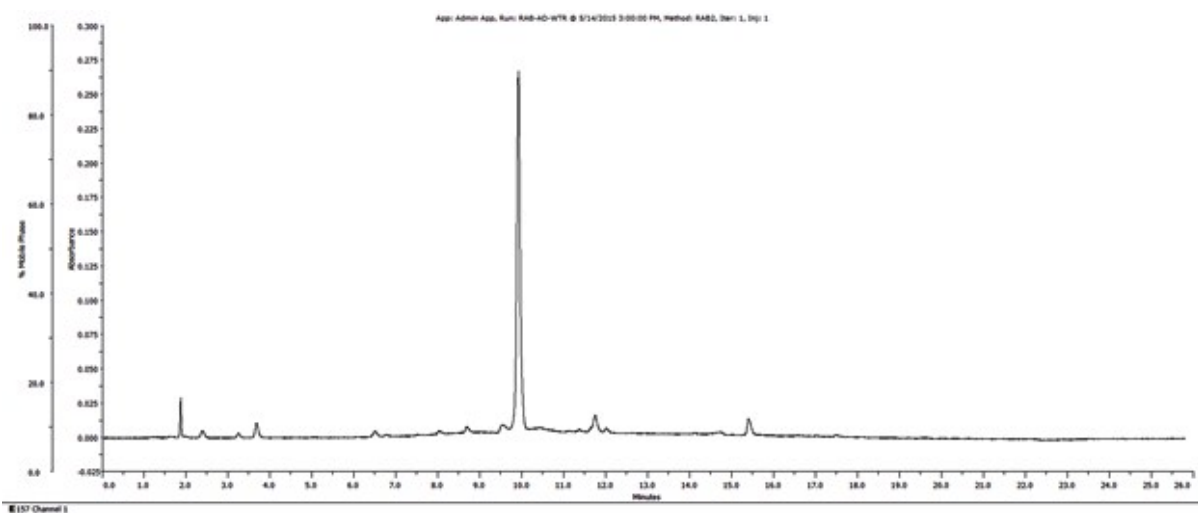**Figure S1.** Semi preparative HPLC Chromatogram of acid degradation solution



**Figure S2.** Semi preparative HPLC Chromatogram of oxidative degradation solution
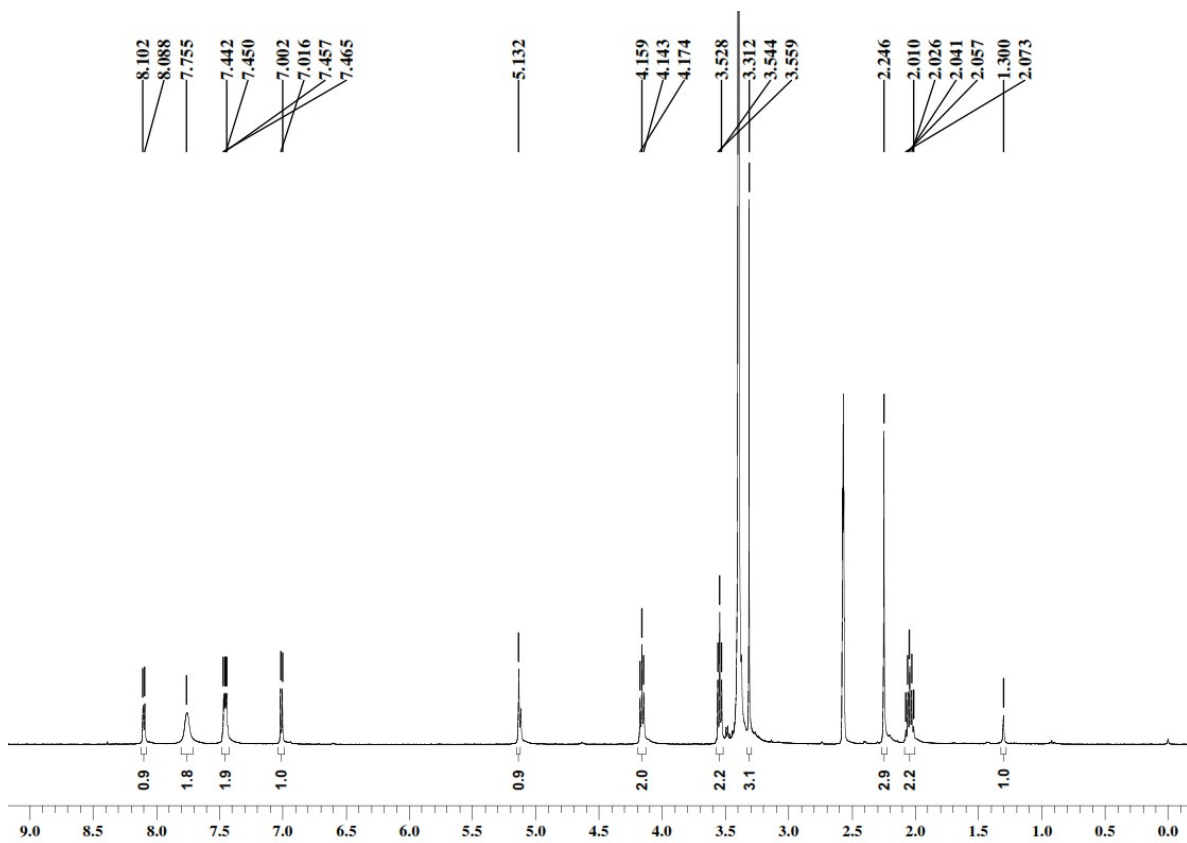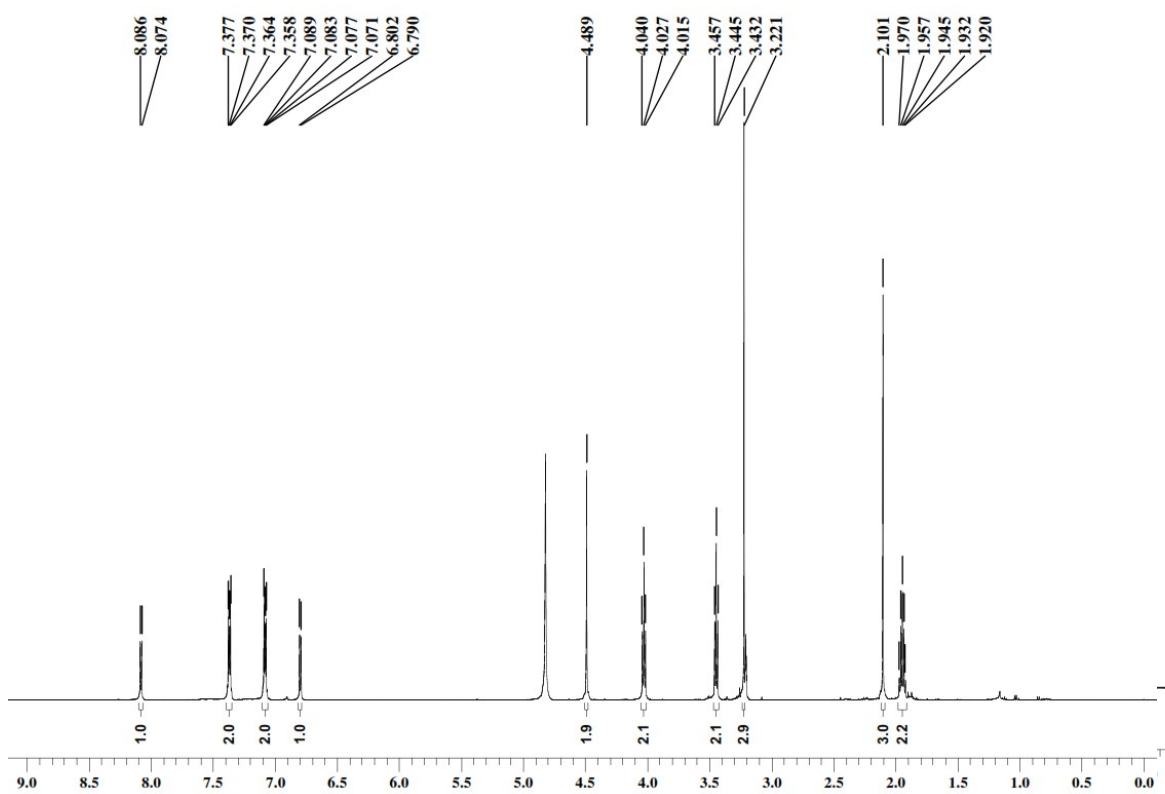
**Figure S3.** $^1$H NMR of acid degradation compound **R3**



**Figure S5.** $^1$H NMR of oxidative degradation compound **R7**
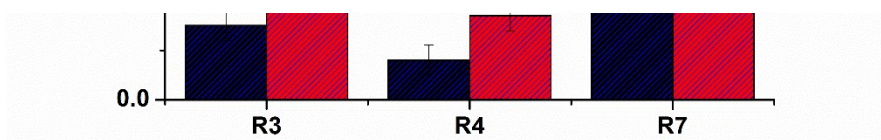


**Figure S4.** $^1$H NMR of acid degradation compound **R4**

**Figure S6.** IC$_{50}$ of **R3, R4** and **R7** on HepG2 and PANC-1 cell lines

**Table S1**. Data of intra-day and inter-day precision studies (n=3).

| Concentration (µg/ml) | Intra-day Prescision | Inter-day Prescision |
|---|---|---|
| | Measured concentration (µg mL-1) SD; RSD (%) | Measured concentration (µg mL-1) SD; RSD (%) |
| 30 | 29.95±0.017;0.06 | 29.88±0.073;0.24 |
| 50 | 50.01±0.011;0.02 | 49.89±0.115;0.23 |
| 60 | 60.05±0.005;0.01 | 59.92±0.130;0.22 |

**Table S2**. Recovery Data for metoprolol spiked into a mixture of stressed samples.

| Spiked Concentration (µg/ml) | Calculated spiked concentration (ng mL-1) SD; RSD (%) | Recovery (%) |
|---|---|---|
| 25 | 24.94±0.042;0.17 | 99.76 |
| 30 | 29.96±0.064;0.21 | 99.86 |
| 35 | 35.02±0.035;0.09 | 100.06 |