## Supporting Information, Tables

**Table S1:** Current UPLC-MS/MS method parameter details

| Method Parameters | Experimental Conditions |
|---|---|
| Column | Waters BEH C18 (100 mm×2.1 mm, 1.7 µm) |
| Mobile Phase (v/v) | ACN: 0.002 M ammonium acetate (50:50) |
| Flow rate ($mL.min^{-1}$) | 0.5 |
| Injection Volume (µL) | 5.0 |
| Column backpressure (psi) | 7325 |
| Column temperature (ºC) | 30 |
| Capillary voltage (kV) | 4.0 |
| RF (V) | 2.5 |
| Extractor (V) | 3.0 |
| Source Temperature (ºC) | 145 |
| Desolvation temperature (ºC) | 450 |
| Cone gas flow ($L.Hr^{-1}$) | 50 |
| Desolvation gas flow ($L.Hr^{-1}$) | 900 |
| LM1 resolution | 13 |
| HM1 resolution | 14 |
| LM2 resolution | 13 |
| HM2 resolution | 14 |

**Table S2.** Details of MS/MS parameters for studied analytes

| Sl. No. | Compounds | MRM Transition (*m/z*) | Mode of Ionization | Dwell time (min) | Cone Voltage (V) | Collision Energy(V) |
|---|---|---|---|---|---|---|
| 1 | NER | 557.09; 512.02; 111.92 | ES+ | 0.05 | 50.0 | 26.0 |
| 2 | NRN | 273.11;152.954;146.97 | ES+ | 0.05 | 45.0 | 26.0 |
| 3 | IMB (I.S.) | 494.52; 394.14; 217.10 | ES+ | 0.05 | 35.0 | 18.0 |

**Table S3.** Data showing extraction recovery and matrix effect

| Compound | Nominal Concentration ($ng.mL^{-1}$) | Extraction Recovery, (n=6) | | Matrix effect, (n=6) | | |
|---|---|---|---|---|---|---|
| | | Mean,% | RSD,% | Mean, % | RSD,% | % Matrix effect |
| NER | 100(LQC) | 85.81 | 1.16 | 85.86 | 0.66 | 14.13 |
| | 500(MQC) | 86.45 | 1.69 | 89.95 | 3.18 | 10.12 |
| | 1000(HQC) | 88.21 | 1.17 | 88.60 | 3.24 | 11.46 |
| NRN | 100(LQC) | 87.09 | 1.59 | 86.92 | 0.18 | 13.0 7 |
| | 500(MQC) | 85.32 | 1.43 | 90.29 | 4.05 | 9.61 |
| | 1000(HQC) | 89.44 | 0.73 | 88.96 | 1.21 | 11.03 |
| IS | 10 | 86.91 | 1.88 | 86.86 | 3.03 | 13.16 |

## Supporting Information, Figures

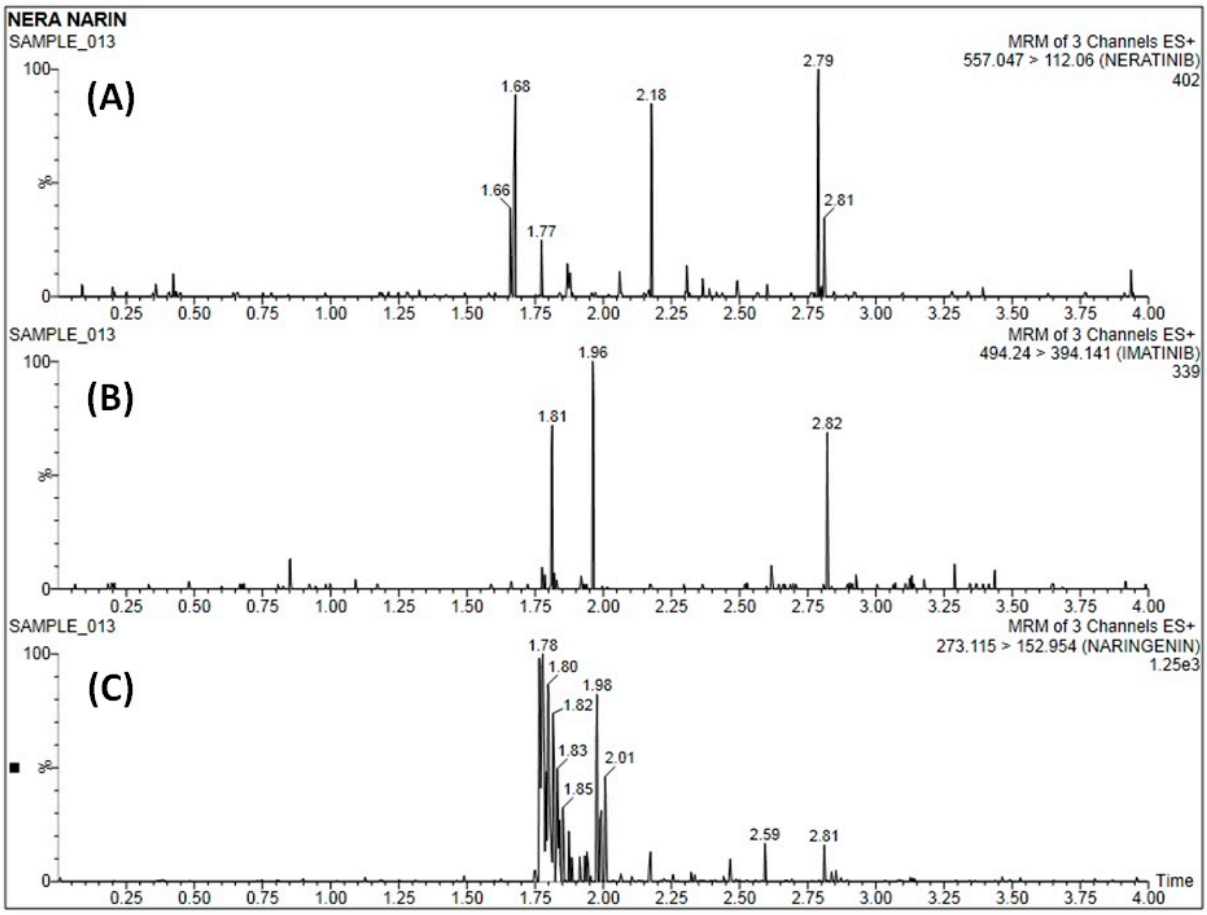


**Figure. S1.** Representative MRM chromatograms of blank plasma samples of (A) NER, (B) I.S. and (C) NRN at 80 ng.mL$^{-1}$ concentration

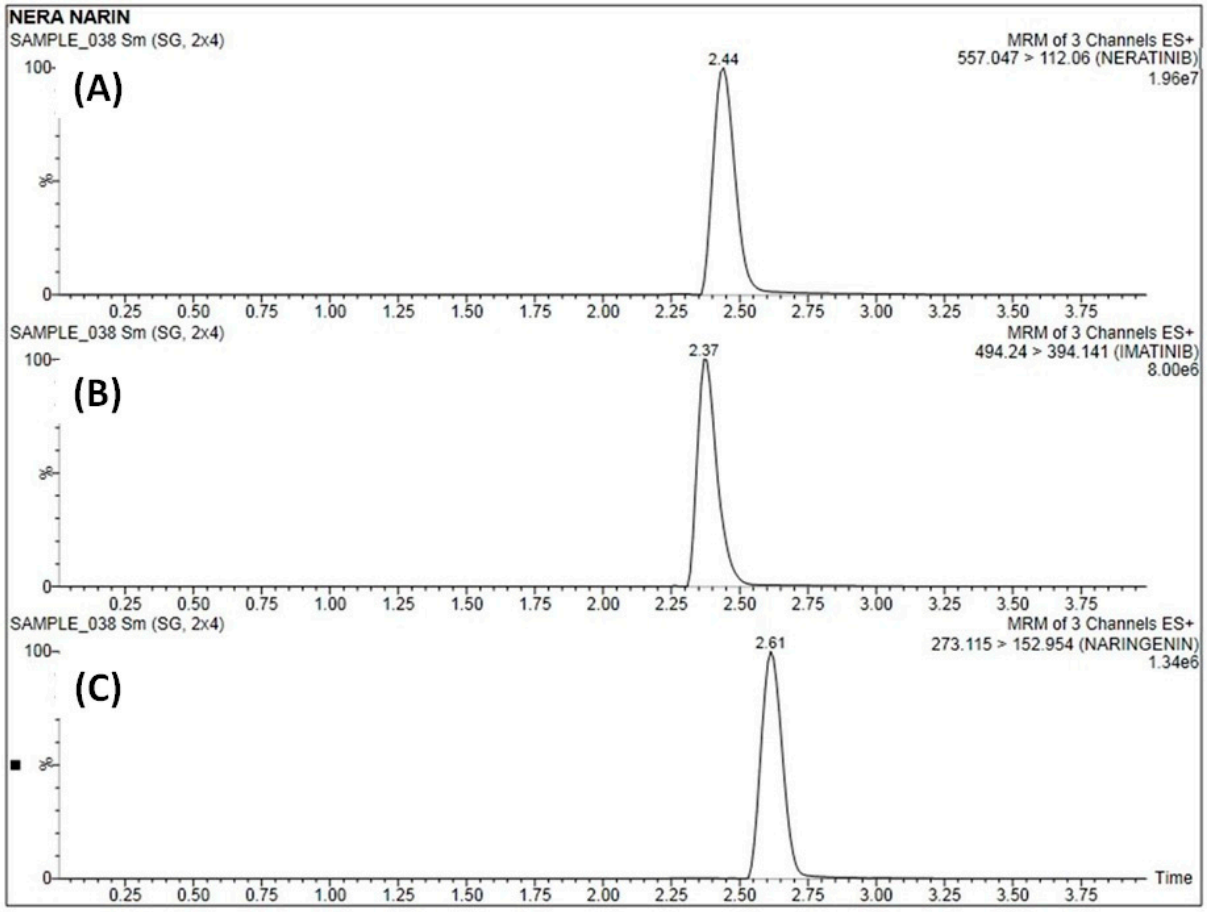


**Figure S2.** Representative MRM chromatograms of plasma samples spiked with (A) NER, (B) IS, and (C) NRN at 80 ng.mL$^{-1}$ concentration