**Table S1** Summary of validated HPLC method for estimation of PIP

|  |  |  |
| --- | --- | --- |
| Parameters | Values | % RSD |
| Linearity and range |  |  |
| Regression equation | y = 276947.424 x - 200378.812 |  |
| Correlation coefficient (r2) | 0.997 |  |
| Range | 2 to 30 µg/mL |  |
| Accuracy |  |  |
| 50% level | 99.85 | 0.757 |
| 100% level | 101.031 | 1.694 |
| 150% level | 99.345 | 1.242 |
| Precision |  |  |
| Repeatability (12 µg/mL) | 3230831.167 ± 5177.835 m.A.U. | 0.16 |
| Intermediate precision |  |  |
| Intra-day |  |  |
| 6 µg/mL | 1618408 ± 3798.53 m.A.U. | 0.234 |
| 12 µg/mL | 3241725.333 ± 4740.057 m.A.U. | 0.146 |
| 18 µg/mL | 4714037.333 ± 14102.094 m.A.U. | 0.299 |
| * Inter-day |  |  |
| 6 µg/mL | 1622421 ± 5989.94 m.A.U. | 0.369 |
| 12 µg/mL | 3256179.333 ± 10828.978 m.A.U. | 0.332 |
| 18 µg/mL | 4707917 ± 12164.467 m.A.U. | 0.258 |
| LOD | 0.259 μg/mL |  |
| LOQ | 0.786 μg/mL |  |
| Robustness |  |  |
| * Flow rate |  |  |
| 0.8 mL/min | 4190108.667 ± 8244.626 m.A.U. | 0.196 |
| 1 mL/min | 3223921.667 ± 4744.925 m.A.U. | 0.147 |
| 1.2 mL/min | 2833650.333 ± 12476.467 m.A.U. | 0.44 |
| * Mobile phase composition (Methanol: Water) |  |  |
| 78:22 v/v | 3450097 ± 13660.3214 m.A.U. | 0.395 |
| 80:20 v/v | 3257255 ± 42512.258 m.A.U. | 1.305 |
| 82:18 v/v | 3459427.66 ± 25292.359 m.A.U. | 0.731 |
| * Run time |  |  |
| 8 min | 3382801.333 ± 11055.37 m.A.U. | 0.326 |
| 10 min | 3227710 ± 501.352 m.A.U. | 0.015 |
| 12 min | 3375691.667 ± 16612.698 m.A.U. | 0.492 |
| * Wavelength |  |  |
| 340 nm | 3390391.333 ± 20376.823 m.A.U. | 0.601 |
| 342 nm | 3377712 ± 19944.805 m.A.U. | 0.59 |
| 344 nm | 3340953.333 ± 19354.762 m.A.U. | 0.579 |
| System suitability study |  |  |
| Area | 3230831.167 ± 5177.835 m.A.U. | 0.16 |
| Retention time (Rt) | 7.047 ± 0.023 min | 0.425 |
| Number of theoretical plates | 3592.834 ± 43.26 | 1.204 |
| Peak purity | 0.998 ± 0.002 | 0.2 |
| Tailing factor (Asymmetry) | 0.9235 ± 0.0017 | 0.194 |
| Capacity factor (k1) | 1.448 ± 0.009 | 0.646 |