**Example calculation for the preparation of a sinigrin standard curve**

1. Calculation of the stock solution molarity

Stock solution: 8.769 mg sinigrin monohydrate dissolved in 10, 0 ml HPLC water

Mass concentration: 0.8769 mg/ml

Molar mass of sinigrin monohydrate: M=415 g.mol-1 -> 1mM= 415 mg.l-1 or 0.415 mg.ml-1

Molarity = Mass concentration / Molar mass = 0.8769 / 0.415 = 2.11 mM

1. Dilution of the sinigrin monohydrate stock solution to obtain a reference curve:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| code | Stock | Vol of stock | Add water | Final concentration on HPLC |
| **SI 5** | 2.11 mM | 300 µl | 700 ul | 0.633 mM = 633 µM |
| **SI 4** | 2.11 mM | 250 µl | 750 ul | 0.5275 mM = 527.5 µM |
| **SI 3** | 2.11 mM | 125 ul | 875 ul | 0.26375 mM = 263.75 µM |
| **SI 2** | 2.11 mM | 75 µl | 925 ul | 0.15825 mM = 158.25 µM |
| **SI 1** | 2.11 mM | 25 µl | 975 ul | 0.05275 mM = 52.75 µM |