

Concentration worksheet

Formulas are printed; every number is yours. Use the same units throughout, or convert first (1 mg = 1000 µg, 1 mL = 1000 µL).



Sealed Peptides

Research use only. For laboratory research use only. Not for human or veterinary use. A record-keeping aid: it contains no recommendations and no pre-filled amounts.

Date _____

Material _____

Notebook reference _____

Checked by _____

A. Material

Molecular weight _____ g/mol
Salt form (if stated) _____
Gross mass weighed _____ mg
Net peptide content, if you hold one _____ %
Purity, if you hold one _____ %

B. Solvent

Solvent / buffer _____
pH (measured) _____
Container type _____
Temperature _____ °C

1. Concentration from mass and volume

concentration (mg/mL) = mass (mg) ÷ volume (mL)

Mass _____ mg
Volume _____ mL
Concentration (nominal) _____ mg/mL
× net peptide content ÷ 100 = corrected _____ mg/mL

2. Solvent volume for a target

volume (mL) = mass (mg) ÷ target (mg/mL)

Mass _____ mg
Target concentration _____ mg/mL
Volume _____ mL

3. Aliquot volume

volume (mL) = mass wanted (mg) ÷ concentration (mg/mL)

Mass wanted _____ mg
Solution concentration _____ mg/mL
Volume _____ mL

4. Molar concentration

mM = mg/mL ÷ molecular weight × 1000

Concentration _____ mg/mL
Molecular weight _____ g/mol
Molar concentration _____ mM

5. Dilution

$C1 \times V1 = C2 \times V2$

C1 / V1 _____
C2 / V2 _____
Solvent to add = V2 - V1 _____

Working and notes

