Oligo Reconstitution and Use

Gene Link oligos are supplied lyophilized. These are stable at room temperature for extended period of time. We recommend the following reconstitution protocol. The solvent may be either sterile TE or sterile water depending on the established laboratory practice. After reconstitution store the stock solution at –80^{0}C or –20^{0}C.

The protocol given below is only to be used as a guideline and should not be substituted for any other specific protocol.

Reconstitution

Stock solution of 500 pmols/μl [500 μM (micromolar)]

Gene Link provides the exact amount of nmoles of each oligo supplied on the tube and on the Oligo Report. Multiply the 'nmol' amount by 2 to arrive at the volume of solvent to be added.

Example: 45.10 nmols x 2 = 90.2 μl
Dissolve the oligo in 90.2 μl to get 500 pmols/μl stock solution. Use as required.

Stock solution of 100 pmols/μl [100 μM (micromolar)]

Gene Link provides the exact amount of nmoles of each oligo supplied on the tube and on the Oligo Report. Multiply the 'nmol' amount by 10 to arrive at the volume of solvent to be added.

Example: 45.10 nmols x 10 = 451 μl
Dissolve the oligo in 451 μl to get 100 pmols/μl stock solution. Use as required.

Examples of Use

Polymerase Chain Reaction (PCR)

The final concentration of primers in a PCR reaction is usually 0.5 to 1 μM (micromolar).
This is equivalent to 0.5 to 1 pmol/μl. For a 100 μl reaction you would add 50 to 100 pmols. At Gene Link we use 0.5 pmol/μl; [0.5 μM (micromolar)].

Sequencing

The final concentration of primer in automated sequencing is from 4 to 10 pmols (~0.05 - 0.1μg). Use the above dilution protocol to prepare a 100 pmols/μl **[100 μM (micromolar)]** solution and then dilute 10 fold to get 10 pmol/μl solution. Use 1μl. (10 pmols)

Quick Conversion Table

1 μM (μMolar) = 1 pmol/μl (pico moles/μl). Example: 20 μMolar primer solution is 20 pmol/μl

1 mM (mill Molar) = 1 nmols/μl (nano moles/μl)

The molecular weight of the oligo=merx330 dalton
For an 18 mer oligo, the MW=18x330=5940
i.e, 5940 g=1 mol, 5.940μg=1 nmol

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