Oligonucleotides dilution from factory to work Version 3

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Abstract

This three-way holding dilution offers some advantages such as preserving the quality of the initial product, preventing waste with contamination and rationalizing the use.

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Materials

- MilliQ water by Contributed by users
- 1.5 mL Eppendorf tubes by Contributed by users
- dNTPs by Contributed by users

Protocol

Mother solution

Step 1.

Oligonucleotides used for molecular biology will be called dNTP (deoxyribonucleotide triphosphate) set. Most commonly companies distribute the aliquotted 100mM dNTP set separately in 4x250uL, dATP, dTTP, dCTP and dGTP.

Stock solution

Step 2.

Equal proportions of dNTP volume are mixed to make up the stock solution. The concentration of 100 mM is maintained. I recommend that you use a volume of 50uL each to get 200uL of final volume, but varies according to your need. This solution should be stored frozen and only thawed when preparing the working solution. This reduces the need for defrosting the stock solution using the stock solution as an intermediate.

Work solution

Step 3.

For this solution we will reduce to 10mM with 1:10 proportion of water.

Store frozen.