

Reconstitution of Primers / Oligonucleotides

January 2020

WHAT YOU NEED

Lyophilised oligonucleotides (Primers)

1X TE buffer pH 8.0

Notes:

Sterile screw cap 2 mL tubes

1. Resuspension of lyophilised primers:

- 1. Oligonucleotides supplied by KT are lyophilised. The oligo pellet may become dislodged in transit and end up in the lid of the tubes / plate wells. Before opening the tube, it is important to spin down every oligonucleotide tube in the centrifuge or agitate the plate to dislodge stuck pellets.
- 2. Dried DNA is usually very easy to re-suspend in aqueous solution but some oligos need more time to go into solution than others. Re-suspend in TE buffer pH 8.0 (1X).
- 3. To reconstitute, use the nanomole quantity for each specific primer shown on the datasheet. For example, to make a 100 μ M concentration stock solution: Take the number of nmoles in the tube and multiply that by 10. This will be the number of microlitres of buffer to add to get a 100 μ M solution.
- Once reconstituted¹, divide the remaining stock solution into several small aliquots of primers and store the stock solution at 4°C in a fridge if you are going to use it soon, but freeze at -20°C. Avoid too many freeze-thaw cycles.

2. Use this area to calculate your primer concentration:

4. Properties of oligonucleotides:

You may need to calculate the molecular weight, melting temperature or some other property of an oligonucleotide which depends on its base sequence. Programs are available to help you do this. For example:

http://www.basic.northwestern.edu/biotools/oligocalc.html

 $^{^1\,}Primers$ can be stored at different concentrations but concentrations <1 μM may change over time as some of the oligo can adhere to the plastic of the tube.