

Annealing Buffer for DNA Oligos (10X)

A743817

Storage: Store at -20 °C for up to 1 year.

Introduction:

Annealing Buffer for DNA Oligos (10X) can not only be used for the annealing of conventional DNA oligos, but also for DNA oligos that are difficult to anneal for RNAi (also called siRNA) plasmid construction. DNA oligos used for RNAi plasmid construction usually contains about 20 complementary sequences that are easy to form hairpin structures, thus affecting the correct annealing of DNA oligos. The use of this product can effectively prevent DNA oligos from forming hairpin structures to ensure correct DNA oligo annealing and enable highly efficient ligation with digested plasmids subsequently.

This product is easy to use. Users just need to mix DNA oligos with this product in an appropriate ratio, and place the mix in a thermocycler to complete the annealing in about 90 minutes.

Usage method:

1. Dilute the DNA oligo to be annealed to 50 μ M in sterilized Milli-Q water or ddH₂O. Thaw the Annealing Buffer for DNA Oligos (10X) and mix well before use.
2. Set up the reaction by adding the reagents in order as follows and mix well. If the thermocycler used does not have a heated lid, add one drop of mineral oil to prevent evaporation.

Nuclease-free Water	50 μ l
Annealing Buffer for DNA Oligos (10X)	10 μ l
DNA Oligo A (50 μ M)	20 μ l
DNA Oligo B (50 μ M)	20 μ l
Total Volume	100 μ l

3. Transfer the reaction tube to a thermocycler and perform the annealing condition as follows:

Step	Temperature	Time	Description
1	95°C	5 minutes	Oligo denaturation
2	70°C	15 minutes	Annealing
3	4°C	∞	Storage

Note 1: If the thermocycler available could not reduce the temperature by 0.1°C, it can also be set to decrease at 1°C every 90 seconds.

Note 2: When a thermocycler is not available, the PCR tube can be placed in a 95°C water bath that can naturally cool down to 25°C within 1-2 hours. However, the annealing efficacy will be inferior to that obtained using a thermocycler.

4. The annealed products can be used directly for ligation, or stored at -20°C for future use. For other applications such as enzyme digestion, the annealed products should be purified with a purification kit, or should not exceed 5% of the reaction volume to avoid the interference of the Annealing Buffer.

Precautions:

This product is for DNA oligos only, and cannot be used for annealing of RNA oligos.

This product is for R&D only. Not for drug, household, or other uses.

For your safety and health, please wear a lab coat and disposable gloves during the operation.

