

Twist Bioscience ships its DNA products dried down or resuspended in 2 mL microcentrifuge tubes, 96-well plates, or 384-well plates. Dried DNA is shipped at ambient temperature and resuspended DNA is shipped frozen.

Double-stranded DNA and single-stranded oligonucleotides are stable under most standard laboratory storage conditions. However, it is important to consider the following best practices to maintain the high quality of the DNA synthesized by Twist Bioscience.

Dried DNA is stable for the following durations based on storage condition.

- Room Temperature for 3 months.
- 4°C for 12 months.
- –20°C for 24 months.
- –80°C for 24 months or longer.

Resuspension Guidelines

- For resuspension, briefly centrifuge the tube or plate before opening and resuspend in nuclease free Tris-EDTA (TE) buffer, pH 8.0 or 10 mM Tris-HCl, pH 8.0 to the desired concentration.
- A concentration of at least 10 ng/μL is recommended for the stock dilution, but the optimal concentration will need to be determined based on your desired application.
- Prepare aliquots of the stock dilution and separate working aliquots to limit chances of contamination and to reduce the number of freeze/thaw cycles. Use working aliquots as soon as possible after preparation and minimize exposure to high temperatures.

Resuspended DNA

- Resuspension is available for some products. Your DNA may arrive in one of the following buffers. We recommend briefly centrifuging the tube or plate before opening.
 - Elution buffer (2 mM Tris-Cl, pH 8.5)
 - TE buffer (10 mM Tris-Cl pH 8.0, 1 mM EDTA)
 - TE Buffer low EDTA (10 mM Tris-Cl pH 8.0, 0.1 mM EDTA)
 - Water
 - We do not recommend long-term storage in water.
- Resuspended DNA is stable for the following durations based on storage condition.
 - Room Temperature for 3 months.
 - 4°C for 12 months.
 - –20°C for 24 months.
 - –80°C for 24 months or longer.

Calculating Dilutions

- The formula for calculating a dilution is $(C1) (V1) = (C2) (V2)$
 C1 is the concentration of the starting solution.
 V1 is the volume of the starting solution.
 C2 is the concentration of the final solution.
 V2 is the volume of the final solution.