## **Cloning: NEBuilder HiFi DNA Assembly**

DNA Assembly was performed using a molar ratio of 1:5 for vector to insert.

Vector DNA mass: 100 ng

Insert DNA mass (single tRNA fragments): 45.45 ng

1. Set up the following reaction on ice:

Table 1: Representation of the composition of the NEBuilder HiFi DNA Assembly reaction

Component	2 Fragment Assembly
DNA Molar ratio	Vector:insert = 1:5
Total Amount of Vector	2 μL
Total Amount of Insert	45.45 ng
NEBuilder HiFi DNA Assembly Master Mix	2 µL
Total Volume	6 μL

- 2. Incubate samples at 50°C for 60 minutes.
- 3. Transform 2  $\mu$ L of the reaction into 50  $\mu$ L competent cells.