Last Update: 22 March 2023

SC-SWCNT Dialysis exchange with DNA

1. Prepare 1L of 10X Sodium Tris-HCl/EDTA Buffer solution

   Dissolve 24.2 g of Tris base, 58.5 g of NaCl and 1.9 g of EDTA in 900 mL DI water. Give a vigorous mix till all the salts are dissolved in the solution. Add HCl (~13 mL) till the solution reaches a pH value of 7.4. Add water to make the total volume of solution to 1 L.

2. Add 900 μL of SC-SWCNT in Eppendorf tube and add 100 μL of DNA (12 mg/mL) to make it a 1 mL CNT solution.
3. Select the dialysis tube and clip it one end and put 1 mL of the CNT solution in dialysis tube and seal the tube with another clip.
4. Fill the beaker with 1800 mL of DI water and add 200 mL of 10X Tris Buffer.
5. Insert the clip into sponge and let it float on the surface in beaker.
6. Use the magnetic stirrer at 120 rpm to induce rotation to the hanging dialysis tube.
7. For every 2 hrs replace the solution and continue dialysis for 3 times. Replace one more time and leave it for rest of time to make a 24-hr total experimental time.