

# PRIMER PREPARATION PROTOCOL

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## PREPARING PRIMER SOLUTION

Step A. TAKING OD

Step B. CALCULATING FINAL OD

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### Preparing Primer solution

#### STEP A: TAKING OD

1. Add 500 $\mu$ l H<sub>2</sub>O to initial Primer pellet & Mix well.
2. Take 15 $\mu$ l to a new 1.5ml tube, add 1485 $\mu$ l H<sub>2</sub>O bringing it to a 1:100 ratio. Mix well.
3. Check for OD using ssDNA program.

Prepare Computer:

- Turn Vision light ON
- Turn UV light ON
- Select Assay type:
  - ssDNA (for primers)
- Set Dilution Factor (100.00)

Prime machine:

- 'Flush' Trace Clear for ~10seconds (for cleaning)
- 'Flush' autoclaved H<sub>2</sub>O for ~10 seconds (cleaning).
- 'Fill Blank' with H<sub>2</sub>O
- Click on the sample number to insert the Sample ID #
- 'Fill Read' with samples for absorption reading
- Repeat for all Samples
- Print readings to calculate the Final OD

#### STEP B: CALCULATING FINAL OD

4. Calculate:  $M_1V_1 = M_2V_2$   
 $M_1$ : Final OD desired = 2 OD/ml  
 $V_1$ : UNKNOWN = Amount of H<sub>2</sub>O add to make [primer] 2 OD.  
 $M_2$ : Primer stock solution OD from part A  
 $V_2$ : 500 $\mu$ l (Final volume of stock solution want to dilute)
5. After calculating volume  $V_1$ , subtract this amount from the total volume of 500 $\mu$ l to determine the amount of primer stock solution to add.

6. In a new ependorf tube, add the appropriate amount of primer stock solution and H<sub>2</sub>O to bring volume to 500μl (OD of 2)
7. Vortex and spin samples briefly – store Primer solutions at -20° C.