

[(A,C,E) 1-5] Testing Pipetting Requirements for Basic PCR:

24 water = water

3.3 buffer = red water

3.3 dntp = skip

1 oligo 1 = yellow water

1 oligo 2 = blue water

0.5 polymerase = green viscous

0.5 template = blue water

[(A, C, E) 6-11] Testing Pipetting Requirements for Miniprep:

250 P1 = water

250 P2 = blue viscous liquid

350 N3 = red water

[(B, D, F) 1-5] Testing Pipetting Requirements for Ligation:

2 T4 DNA Ligase Buffer (10X) 2 μ l = blue viscous liquid

0.5 Vector DNA (4 kb) = red water

3 Insert DNA (1 kb) = green viscous liquid

13.5 Nuclease-free water = yellow water

1 T4 DNA Ligase 1 μ l = red viscous liquid

[(B, D, F) 6-11] Testing Pipetting Requirements for Sequencing:

10 DNA template = red water

0.5 primer = blue water

15 water = yellow water

1 buffer = green viscous liquid

Student 1:

[A1-A5] - In PCR tube: Add 26uL water, 3uL red water, 1uL yellow water, 1uL blue water, 0.5uL green viscous liquid, 0.5uL blue viscous liquid

In Eppendorf: Add 75uL of water

Transfer 30uL of PCR to Eppendorf

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to A1.

Repeat for wells A2-A5.

[A6-A11] – In Eppendorf: Add 250uL water, 250uL Blue viscous liquid, 250uL red water

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to A7.

Repeat for wells A8-A11.

[B1-B5] – In PCR tube: Add 2 µl blue viscous liquid, 0.5uL red water, 3uL green viscous liquid, 15.5uL yellow water, 1 µl red viscous liquid.

In Eppendorf: Add 85uL

Transfer 20uL of PCR to Eppendorf

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to B1.

Repeat for wells B2-B5.

[B7-B11] - In PCR tube: Add 10uL red water, 0.5uL blue water, 17.5 uL yellow water, 1uL green viscous liquid.

In Eppendorf: Add 78uL water

Transfer 27uL of PCR to Eppendorf

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to B7.

Repeat for wells B8-B11.

Student 2:

[C1-C5] - In PCR tube: Add 24uL water, 3uL red water, 1uL yellow water, 1uL blue water, 0.5uL green viscous liquid, 0.5uL blue viscous liquid

In Eppendorf: Add 70uL of water, Transfer content of PCR to Eppendorf, Vortex

In 96-well plate: Transfer contents of Eppendorf to C1.

Repeat for wells C2-C5.

[C6-C11] – In Eppendorf: Add 250uL water, 250uL Blue viscous liquid, 250uL red water

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to A7.

Repeat for wells A8-A11.

[D1-D5] - In PCR tube: Add 2 µl blue viscous liquid, 0.5uL red water, 3uL green viscous liquid, 15.5uL yellow water, 1 µl red viscous liquid.

In Eppendorf: Add 85uL

Transfer 20uL of PCR to Eppendorf

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to B1.

Repeat for wells B2-B5.

[D7-D11] - In PCR tube: Add 10uL red water, 0.5uL blue water, 17.5 uL yellow water, 1uL green viscous liquid.

In Eppendorf: Add 78uL water

Transfer 27uL of PCR to Eppendorf

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to B7.

Repeat for wells B8-B11.

Student 3:

[E1-E5] - In PCR tube: Add 24uL water, 3uL red water, 1uL yellow water, 1uL blue water, 0.5uL green viscous liquid, 0.5uL blue viscous liquid

In Eppendorf: Add 70uL of water, Transfer content of PCR to Eppendorf, Vortex

In 96-well plate: Transfer contents of Eppendorf to C1.

Repeat for wells C2-C5.

[E6-E11] – In Eppendorf: Add 250uL water, 250uL Blue viscous liquid, 250uL red water

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to A7.

Repeat for wells A8-A11.

[F1-F5] - In PCR tube: Add 2 µl blue viscous liquid, 0.5uL red water, 3uL green viscous liquid, 15.5uL yellow water, 1 µl red viscous liquid.

In Eppendorf: Add 85uL

Transfer 20uL of PCR to Eppendorf

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to B1.

Repeat for wells B2-B5.

[F7-F11] - In PCR tube: Add 10uL red water, 0.5uL blue water, 17.5 uL yellow water, 1uL green viscous liquid.

In Eppendorf: Add 78uL water

Transfer 27uL of PCR to Eppendorf

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to B7.

Repeat for wells B8-B11.

Student 4:

[G1-G5] - In PCR tube: Add 24uL water, 3uL red water, 1uL yellow water, 1uL blue water, 0.5uL green viscous liquid, 0.5uL blue viscous liquid

In Eppendorf: Add 70uL of water, Transfer content of PCR to Eppendorf, Vortex

In 96-well plate: Transfer contents of Eppendorf to C1.

Repeat for wells C2-C5.

[G6-G11] – In Eppendorf: Add 250uL water, 250uL Blue viscous liquid, 250uL red water

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to A7.

Repeat for wells A8-A11.

[H1-H5] - In PCR tube: Add 2 µl blue viscous liquid, 0.5uL red water, 3uL green viscous liquid, 15.5uL yellow water, 1 µl red viscous liquid.

In Eppendorf: Add 85uL

Transfer 20uL of PCR to Eppendorf

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to B1.

Repeat for wells B2-B5.

[H7-H11] - In PCR tube: Add 10uL red water, 0.5uL blue water, 17.5 uL yellow water, 1uL green viscous liquid.

In Eppendorf: Add 78uL water

Transfer 27uL of PCR to Eppendorf

Vortex Eppendorf.

In 96-well plate: Add 100uL of contents in Eppendorf to B7.

Repeat for wells B8-B11.