

7.003 Spring 2022
Day 6 In-Lab Questions

1) Why did you perform a Halo Assay on your mutant candidates when you had already shown that the mutants could grow on α -Factor plates? What new or additional information could you learn from doing the Halo Assay that you wouldn't necessarily know just from replica-plating or streaking your mutants on the α -Factor plates?

2) Would it be possible for one of your mutants to not form halos in the Halo Assay and to also shmoo in the Shmoo Assay or to mate in the Mating Assay? Explain why or why not.

3) You perform all four 7.003 orthogonal assays (Halo, Mating, Shmoo, and Sporulation Assays) with the following three strains:

Strain #1: *MATa*

Strain #2: *MATa bar1-1*

Strain #3: *MATa ste11 Δ*

For which orthogonal assay(s) would you expect to see different results between Strain #1, #2, and #3? Explain why or why not.

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