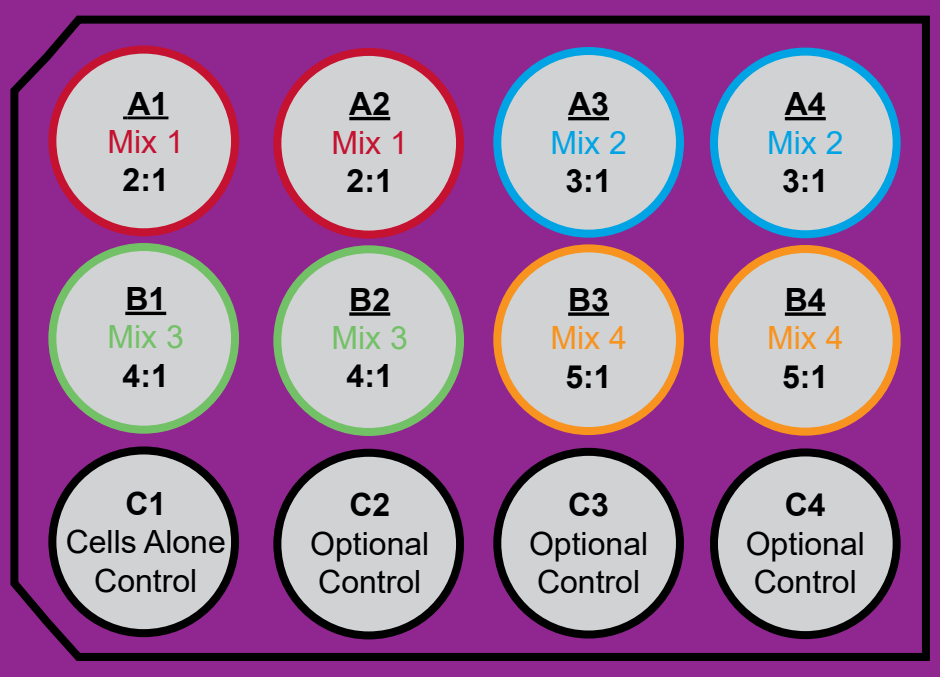
# Optimize Your Transfections!

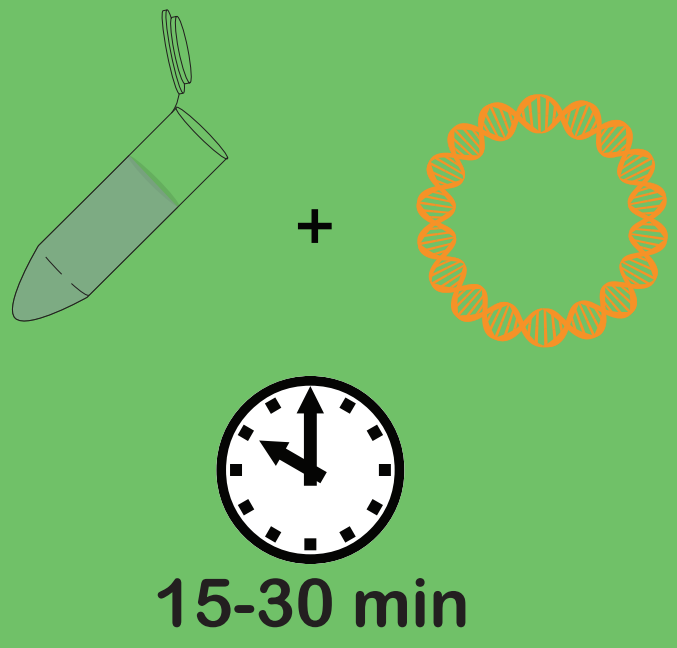
## *5 tips to get the best results in your experiments*

## Get Your Ratios Right

It's important to test multiple **Reagent:DNA ratios**. Finding the optimal ratio for your cells will help unlock the highest transfection efficiency and decrease toxicity.




## The Complexity of Complexes




DNA-Reagent complex formation takes time. Allow your transfection reagent and DNA mixture to incubate for 15-30 minutes* at room temperature before adding the mix to your cells. Transfection efficiency will decrease if complex formation time exceeds one hour.

*Incubation time varies by reagent, reference product protocol

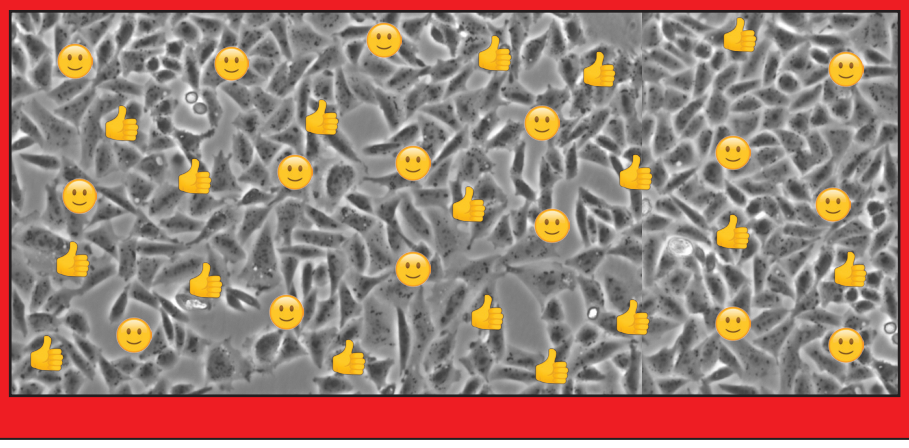
## DNA Do's and Don'ts

**Do:** Use endotoxin-free, **high quality DNA** for all transfections. Contaminants like proteins, carbohydrates and lipids can negatively affect transfection efficiency and gene expression levels.

**Don't:** Assume all cell types require the same dose of DNA. In some suspension cell lines, such as THP-1, transfecting higher amounts of DNA leads to higher transgene expression. Be sure to keep DNA:Reagent ratio constant when adjusting DNA dose.

## Divide and Conquer

Use **happy**, **healthy**, and **actively dividing cells** to maximize your transfection efficiency. Mirus recommends plating your cells the night before transfection at a density that will promote cell division, and obtain **75-90% confluency** at the time of transfection.



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