

ELISA Activity Learning Objectives

This ELISA activity is part of the Influenza Outbreak Investigation curriculum. The data from this exercise is added to the data collected from the other experiments in this curriculum to give students a look at whether or not 'patients' are producing antibodies specific for the influenza virus.

In this activity, students learn about antibodies and how ELISAs work. They then learn about antibodies, why they need to test their "patients" for anti-influenza antibodies, and what testing positive/negative could mean for the patient.

Students also learn how to perform an ELISA, how to interpret the results, and by using Excel, create a standard curve and with the equation from the standard curve, quantify their results.

Learning Objectives

By the end of this lesson, students will:

- Explain how ELISAs work and how they can be used
- Explain why it would be important to test for the presence of antibodies to influenza in patient serum
- Perform an ELISA assay
- Using excel
 - o Created a standard curve
 - o Calculate the equation from a standard curve
- Relate the findings from the ELISA to the overall health of their assigned patients