

ELISA Reading and Resources:

(Compiled by Rama Devagupta, Southridge High School, Kennewick, WA)

Most of the available readings on ELISA are complex. Understanding ELISA requires a basic understanding of Immunology.

(A) University of Arizona's *The Biology Project* website is strongly recommended. This is at a relatively simple level compared to many other resources. Teachers can assign the reading as homework or devote a class period for guided reading and exploration at school in the computer lab (to prevent cheating). Students should be asked to take Cornell notes or Reading Outline or some other form of notes. Each section of the reading and tutorial also has practice problems.

1. Introduction to Immunology
<http://www.biology.arizona.edu/immunology/tutorials/immunology/main.html>
2. Antibody Structure
<http://www.biology.arizona.edu/immunology/tutorials/antibody/structure.html>
3. Introduction to ELISA Activity:
<http://www.biology.arizona.edu/immunology/activities/elisa/main.html>
4. HIV Simulation –
<http://www.biology.arizona.edu/immunology/activities/AIDS2003/main.html>

(B) HHMI Resources: This resource requires more time for teaching and instruction.

1. Immunology Teacher Guide has curriculum objectives and correlations to AP, IB and NGSS standards:
<https://www.hhmi.org/biointeractive/teacher-guide-immunology>
2. Virtual Lab with student worksheet (does not have an answer key but teachers can create it very easily by going through the virtual lab).
<https://www.hhmi.org/biointeractive/immunology-virtual-lab>

(C) David L. Robinson and Joann M. Lau *Assessment of an ELISA Laboratory Exercise*, The American Biology Teacher, 2012, Vol. 74, No. 8, pp. 558-563

<http://abt.ucpress.edu/content/ucpabt/74/8/558.full.pdf>

(D) Karen M. Aguirre *The Unfortunate Nurse: A Case Study of Dengue Fever and Social Policy* A Case Study from the National Center for Case Study Teaching in Science

http://sciencecases.lib.buffalo.edu/cs/collection/detail.asp?case_id=276&id=276

(E) Nicole M. Anthony *BSL-4: Authorized Personnel Only* A Case Study from the National Center for Case Study Teaching in Science

http://sciencecases.lib.buffalo.edu/cs/collection/detail.asp?case_id=825&id=825