

Influenza Kit - PCR/Gel Electrophoresis Lab

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This section contains information about the PCR test. In this kit, PCR and gel electrophoresis are used to determine whether or not the influenza genome is present in fictitious patient samples.

The materials include information about:

- polymerase chain reaction (PCR)
- PCR modeling activities
- gel electrophoresis

A. PCR and Gel Electrophoresis Slide Decks

This section contains a powerpoint introducing polymerase chain reaction (PCR) and the use of PCR to detect viral DNA as well as a powerpoint on agarose gel electrophoresis

Identification of an Infectious Agent Using PCR

Agarose Gel Electrophoresis

B. PCR and Gel Electrophoresis Protocols

Influenza Outbreak_PCR and Agarose Gels Protocol

1 Kb Ladder image

C. PCR Modeling Activities

Paperclip PCR Modeling Instructions

PCR Animations and Paperclip PCR Teacher Notes

Influenza Outbreak_NEW-PCR Animations and Paperclip PCR Teacher Notes

[PCR modeling resources from 3D Molecular Designs](#)

The PCR model included in 3DMD's Biotechnology kit is the best one we have ever seen.

BiotechnologyKit_ExploringPCR_ActivityGuide

BiotechnologyKit_ExploringPCR_StudentWorksheet

BiotechnologyKit_PCRActivityGuide

This is a really good PCR animation activity designed by Adam Waltzer (Eastside Preparatory School, WA) that takes students through 3 rounds of PCR.

PCR Animation Assignment_AWaltzer

C. PCR/Gel Electrophoresis Results

This is an electronic data set of the gel results of the Influenza PCR reactions for all 'patients', which can be used to teach this lab virtually.

Influenza Outbreak Investigation Kit PCR Data