

Laboratory terminology 101:

**Gram Stain:** helps to visualize rods, cocci, white blood cells, red blood cells, or squamous epithelial cells in a sample.

**Culture:** The growth of an organism/s in or on a nutrient medium, or in living cells.

**Isolate:** A pure culture of an organism.

**Enzyme Immunoassay (EIA) or Enzyme linked immunosorbent Assay (ELISA):** detects antibody or antigens. (This is not a culture.)

**Polymerase Chain Reaction (PCR):** Molecular method used to detect the presence of a particular target DNA (virus, bacteria, human, etc) by amplifying a single copy of DNA into thousands of copies of the target DNA sequence.

**Reverse Transcription PCR (RT-PCR):** Same as PCR but instead of DNA, RNA is converted to its complementary DNA (cDNA) using a reverse transcriptase enzyme, this cDNA is then amplified for target detection using the PCR method. Commonly used for the detection of Viruses.

**Serology:** Detects the presence/absence of a certain type of antibody, which can aid in determining disease presence or previous exposure. (ex IgM, IgG, or IgA).

**Antibody Titer:** The reciprocal of the highest dilution of the patient's serum in which antibody is still detectable. Example: a fourfold rise in titer would be a person who has a positive 1:8 result and then rise to 1:32.

Source: Bailey & Scott's Diagnostic Microbiology, 12e.

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