## **Radial Immunodiffusion**

Radial Immunodiffusion is a technique used for the identification and/or quantification of any antigen or immunoglobulins (Ag or Ab).

It is a technique that involves evaluation of the precipitin reaction in a clear gel, seen when an antigen placed in a hole in the agarose diffuses evenly into the medium. An obvious ring forms when the Ag meets the Ab.



The diameter if the ring is directly proportional to the concentration of their Ag. Reverse radial Immunodiffusion is when Ag is incorporated in the gel and can be used to quentitate the amount of Ab present in the sample.

## Zone of Inhibition:

Antibiotic discs are often used to determine if a particular bacterium is susceptible to a type of antibiotic. The bacteria are grown on a dish and discs saturated with different antibiotics are placed on top of the growing bacteria. If the antibiotic works successfully, a clear ring will appear around the disc in 24/48 hours. The ring is called the zone of inhibition. It is measured in mm to see how wide it is. The larger this zone of inhibition, the more effective that antibiotic is against that particular type of bacteria. In this exercise, you will design an experiment to determine if a certain chemical will prevent or inhibit bacterial growth on a petri dish.

