

## Antigen-Antibody Interaction: using the Ouchterlony method to support taxonomic relationships

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This experiment is designed to illustrate antigen-antibody interaction and can be applied to the study of evolution. The Ouchterlony method is a double diffusion system in an agar medium. A precipitate is formed on an agar plate between compatible antigens and antibodies. The subjects are representative ungulates: horses, pigs, cows, and sheep. The antigens are blood albumin from these groups and the anti-sera is purchased from a chemical supply company such as Sigma (800-325-3010). Typical results support the current placement of horses, pigs, sheep, and cows into their own order and sub-orders, respectively. To understand the results, information about the following subjects is necessary: a) the specificity of antibodies, b) the taxonomic relationship between the animal groups whose albumins are being tested, and c) the “molecular clock” theory.

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