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The Alien Globulin-Albumin Ratio in Artificial Serum Mixtures.

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If 5 cc. 7.5% horse serum-globulin are added to 95 cc. normal dog serum, the mixture allowed to stand in the ice chest over night, and the proteins of the mixture then separated by half-saturation, followed by full-saturation with ammonium sulphate, titrations by means of specific rabbit precipitin indicate a quantitative recovery of the horse protein in the globulin fraction of the serum mixture.

If horse serum-albumin is similarly added to normal dog serum, 33⅓% of the horse protein is recovered in the globulin fraction, and 66⅔% is the albumin fraction. A similar apparent 33⅓% conversion of horse albumin into horse globulin takes place in heat-inactivated normal dog serum.

The above tests are preliminary to a study of the mechanism of the intravenous denaturization of foreign proteins.

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Is a Quantitative Precipitin Titration Possible?

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In order to estimate the specific protein content of an unknown solution, 2 methods of precipitin titration are in use. Successive dilutions of the unknown may be mixed with a constant amount of specific antiserum, and the maximum dilution giving a demonstrable precipitin reaction may be determined. This dilution is compared with the maximum dilution of a known or standard protein solution giving the same end-reaction. For example, if the unknown gives an end-reaction in the dilution 1:1000, while the corresponding reading with the standard solution is 1:10,000, the conclusion is drawn that the unknown contains 10% of the specific protein of the standard, interfering factors, of course, being experimentally ruled out.