Determination of C4 concentration by the Mancini test.

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An appropriate anti-C4 antiserum (antibody) is poured in the center well of an agar-containing plate.

1 Carefully circular wells are cut and detached from the plates.

2 A series of standards containing known concentrations of C4 are placed in separate wells, while “unknown” human serum samples and control are placed in other wells.

3 A ring of precipitate forms in the area of optimal antigen-antibody concentration, meaning anti-C4-C4 reaction as the antigen diffuses radially.

4 The diameters of the rings are measured and perceived normally in 48-72 hours.
6  Finally, a standard curve is developed using the ring diameters of the standards versus the concentrations.

7  A curve is then used to plot the concentration of the control and unknown C4 samples.