

Luteinizing Hormone in Serum- Luteinizing hormone (LH) is measured by using an immunoradiometric assay (LH MAIAclone from Serono Diagnostics, Ciba-Corning, East Walpole, MA) (1-19). Samples, standards, and controls are reacted with a mixture of monoclonal antibodies to LH. An antibody labelled with ^{125}I attaches quickly to a unique site on the molecule. A second monoclonal antibody linked to fluorescein binds at a discrete site on the LH molecule forming a sandwich. At the end of the incubation, anti-fluorescein coupled to a magnetic solid phase (MAIA) is added in excess, and rapidly and specifically binds to the monoclonal antibody complex, then is precipitated in a magnetic field, eliminating the need for centrifugation (1-15, 17-19).

The concentration of antigen is directly proportional to the radioactivity bound to the separation reagent. By measuring the bound fraction (separation reagent pellet) of each standard, sample, and control in a gamma counter calibrated to detect ^{125}I , one can determine the concentration of LH in the samples and controls.

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