

Antibody to Hepatitis A in Serum- A test sample is mixed with detection-phase reagent in a reaction well. The detection-phase reagent consists of anti-HAV conjugated with peroxidase (anti-HAV/PO). The sample-conjugate mixture is incubated with a bead coated with HAV antigen. Any anti-HAV in the test sample competes with the conjugate for HAV epitopes present on the bead. Thus, at the end of the incubation period, the amount of conjugate immunochemically bound to the bead will be inversely proportional to the concentration of anti-HAV in the sample. The beads are washed to remove any unbound material. The beads are then incubated with a hydrogen peroxide/o-phenylenediamine (H₂O₂/OPD) chromogenic substrate solution. The reaction of substrate solution with peroxidase yields a yellow-orange color. The reaction is stopped by the addition of 1-N sulfuric acid. The intensity of the color generated is measured spectrophotometrically at 492 nm. The instruments used to measure the test results are equipped with software that calculates a cutoff value. The cutoff calculation is based upon values obtained from control reagents included with each testing series. Results are expressed as "positive" or "negative" for anti-HAV. This is an FDA-licensed method commercially obtained in kit form. The literature and instructions with each kit constitute the standard operating procedure (SOP) for the method.

-from *Laboratory Procedures Used for the Third National Health and Nutrition Examination Survey (NHANES III) 1988-1994*
Elaine W. Gunter, Brenda G. Lewis, and Sharon M. Koncikowski, 1996