Herpes Simplex 1 & 2 Antibodies in Serum- Although extensive antigenic cross-reactivity exists between the two viral types of herpes, a viral glycoprotein specific for herpes simplex virus type 2 (HSV-2) (designated gG-2), and a glycoprotein specific for herpes simplex virus type 1 (HSV-1) (designated gG-1) have been identified. Monoclonal antibodies and affinity chromatography have been used to purify these glycoproteins and thus provide antigens for type-specific herpes serologic assays. Solid-phase enzymatic immunodot assays are used to detect antibodies reactive to these antigens. The purified glycoprotein, gG-1 or gG-2, is adsorbed to the center of a nitrocellulose disk. The rest of the disk surface is coated with bovine serum albumin (BSA) to prevent further nonspecific protein adsorption. Incubation of test serum with the disk allows specific antibodies, if present, to bind to the immobilized antigen. After extensive washing to remove nonreactive antibodies, the bound antibodies are detected by sequential treatment with peroxidase-conjugated goat-anti-human IgG and the enzyme substrate (H_2O_2 with chromogen 4-chloro-1-naphthol). A positive reaction is demonstrated by the appearance of a blue dot at the center of the disk. Serum reactive to an immunodot charged with gG-1 indicates previous and probable latent HSV-1 infection. Serum reactive with gG-2 indicates previous and probable latent HSV-2 infection.

-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