HSV Western Blot Serology

Updated 5/1/2017

For requisition forms, reprints, patient information sheets, courier services, information on packaging or shipping call Client Support Services at 800.713.5198.

Background

Accurate assays to detect antibodies to HSV-1 and HSV-2 are useful to diagnose subclinical infections and to supplement virus detection methods in cases of atypical presentation or when sampling conditions are not optimal for virus recovery.

CDC guidelines stipulate that only a type-specific serology based on glycoprotein gG2 be used. Even commercial, FDA-cleared ELISA tests may have false positive results for HSV type 2 antibodies especially in samples with low positive readings. In addition, false negative HSV type 1 antibody results occur because the ELISA tests are less sensitive than HSV Western blot.

The HSV Western blot uses HSV-1 and HSV-2 proteins which have been separated by size so that type-specific antibody profiles can be recognized with a specificity of >99%. This method may be used to distinguish maternal from infant antibody profiles and to distinguish serum and cerebrospinal fluid profiles of HSV antibodies. This test has been exhaustively validated in studies of well-characterized patient populations. It is the current gold standard HSV serology and provides a highly accurate confirmatory test for results by ELISA.

The test is an overnight assay and preliminary results ready on most sera 3-5 days after receipt in the lab. About 20% of sera require further testing, which requires an additional 5-7 days.

Ordering Information

Specimen requirements: 1.0 mL serum from a gold or red-top (not purple top) tube. The specimen container must be labeled with 2 unique patient identifiers (e.g. name and date of birth) and these identifiers MUST match the accompanying requisition form.

Packaging: Send serum in a labeled, leak-proof, unbreakable tube. Wrap the tube in absorbent material and place in a crush-proof shipping container. Include a UW Clinical Lab Request Form, placed in a separate plastic bag, and send it with the specimen in the shipping container.

Shipping: Ship with ice packs by overnight courier to University of Washington Medical Center, Room NW 220, 1959 N.E. Pacific St., Seattle, WA. 98195.

HSV Western blot price: $226.85 (payable in US currency & adjusted to current exchange rate)
CPT Code: 84181

References


Morrow RA, Friedrich D. Inaccuracy of certain commercial enzyme immunoassays in diagnosing genital infections with herpes simplex virus type 1 or 2. Amer J Clin Pathol 2003;120:839-844

Morrow RA, Friedrich D, Meier A, Corey L. Use of biokit HSV-2 rapid assay to improve the positive predictive value of Focus HerpeSelect HSV-2 ELISA, BMC Infect Dis 2005; 5:84.