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JOURNAL ARTICLE

Solid-phase indirect immunogold localization of human sperm antigens reacting with antisperm antibodies in human sera

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A simple solid-phase indirect immunogold assay for light microscopic localization of the binding of sperm-reactive antibodies in human sera to surface-associated antigenic sites on human sperm is described. Antigen-antibody interaction is localized by using a gold-tagged second antibody directed against the first antibody. Silver enhancement of the 5 nm gold particles makes the immunologic reaction visible by light microscopy. An ELISA was used to identify serum samples as positive or negative for sperm-reactive antibodies. These serum samples were blind-coded and were used to develop and to evaluate this solid-phase indirect immunogold assay. When results obtained by this immunogold assay for the detection of sperm-reactive antibodies were compared with those obtained by the ELISA, there was agreement in 82 of the 100 sera tested. As a localization assay, this indirect immunogold assay is simple to perform and enables stable, high resolution light microscopic localization of the pattern of antigenic sites on sperm surface membranes.

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