Detection of Anti-Ovalbumin IgG in Serum by Immune Complex Transfer Enzyme Immunoassay

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SUMMARY

An immune complex transfer enzyme immunoassay for anti-ovalbumin IgG in serum is described. Serum-specific antibody was reacted simultaneously with 2,4-dinitrophenyl-bovine serum albumin-ovalbumin conjugate and ovalbumin-peroxidase conjugate. The complex formed by the three components was trapped onto polystyrene balls coated with anti-2,4-dinitrophenyl group IgG, eluted with eN-2,4-dinitrophenyl-L-lysine and transferred to polystyrene balls coated with anti-human IgG-γ-chain. Bound peroxidase activity was determined by fluorometry. This enzyme immunoassay was 300- to 1,000-fold more sensitive and more reliable than the enzyme-linked immunosorbent assay (ELISA). Anti-ovalbumin IgG was detected in 100% of healthy subjects using this method while only 14% were detected by ELISA. (Clin. Lab. 2001;47:213-217)