

Insulin was measured from serum at baseline using a Microparticle Enzyme Immunoassay (MEIA) on the Abbot IMx™ (Abbott Laboratories Diagnostics Division, South Pasadena, CA). This assay measures immunoreactive insulin (the component of circulating insulin and insulin-like biological activity that can be measured using antibodies against insulin) by binding insulin to mouse monoclonal antibody-coated microparticles, transferring them to a glass fiber matrix and, adding a fluorescent substrate 4-methylumbelliferyl phosphate. The fluorescent product is measured by the MEIA optical assembly of the IMx System. The IMx immunoassay shows no cross-reactivity with proinsulin (<0.005%). There may be interference from insulin antibodies that develop in patients treated with bovine or porcine insulin (Tietz NW (ed) Clinical Guide to Laboratory Tests, 2nd Ed., Philadelphia: WB Saunders, 1990:333). Hemolyzed samples should not be used, since enzymatic degradation of insulin may occur and result in lower assay values (Ziegler et al. (1972) J Clin Endocrinol Metab, 35:317-8; Brodal (1971) Eur J Biochem, 18:201-6. The complete product information sheet is available on request from the Health ABC Coordinating Center (contact Ekenyon@psg.ucsf.edu).