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人之甲促素貝他次單元抗體之製作

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The Preparation of Antibody to Human Thyrotropin- β Subunit

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A highly specific antibody to human thyrotropin, β -subunit (hTSH- β) has been induced in rabbits. One hundred micrograms hTSH- β (Calbiochem) were dissolved in 4 ml normal saline and then emulsified with 4 ml complete Freund's adjuvant before intradermal injections at multiple sites along the backs of 4 rabbits. Five repeated injections were given within 8 months following the primary injection. Blood samples were collected by an ear vein incision and the sera were examined for the presence of the antibody against hTSH- β was labeled with ^{125}I using the chloramine-T method and purified on Sephadex G-75 column. No cross-reaction with human luteinizing hormone, human growth hormone, hypothalamic hormones, and neurotransmitters was detected in this assay. Human plasma tested at various amounts ranged from 50 to 200 μl produced a dose-response curve which was parallel to that obtained with hTSH- β standard. Sensitivity of the RIA was 80 pg hTSH- β or 0.5 μIU hTSH per assay tube. The recovery of exogenous hTSH- from 100 μl human plasma was $101.3 \pm 3.9\%$ (n=9).