Immunoradiometric assay kit for human Thyroid Stimulating Hormone (TSH)

Cat. No. KITZ-053 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Thyrotrope cells of the anterior pituitary synthesize and secrete human thyroid stimulating hormone (TSH), a glycoprotein of molecular weight 28,000 Da, comprising two subunits: α-TSH is very similar to a α subunit of LH, FSH and hCG, β-TSH differs from other hormone subunits and defines the immunological specificity. TSH regulates the synthesis and release of thyroid hormones: thyroxin (T4) and triiodothyronine (T3). TSH secretion is stimulated by a hypothalamic peptide, TRH (TSH releasing hormone); a negative feedback on TSH secretion is exerted by T3 and T4. Primary hyperthyroidism is now easily differentiated from euthyroidism by ultrasensitive TSH-Irma, because of the high sensitivity (0.025 µIU/ml) and high discrimination power.
Applications	Immunoradiometric assay kit for the measurement of human Thyroid Stimulating Hormone (TSH) in serum and plasma. This kit is for research use only and not intended for use in diagnostic procedures.
Storage	Before opening or reconstitution, all kit components are stable until the expiry date, indicated on the vial label, if kept at 2 to 8°C. After reconstitution, calibrators and controls are stable for 8 days at 2 to 8°C. For longer storage periods, aliquots should be made and kept at – 20°C for maximum 3 months. Avoid subsequent freeze-thaw cycles. Freshly prepared Working Wash solution should be used on the same day. After its first use, tracer is stable until expiry date, if kept in the original well-closed vial at 2 to 8°C. Alterations in physical appearance of kit reagents may indicate instability or deterioration.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Size	96 tests
Kit Components	Tubes coated with anti TSH (monoclonal antibodies): 2x48, Ready for use. Anti-TSH-^{125}I (monoclonal antibodies) in TRIS maleate buffer with bovine serum albumin, azide (<0.1%), EDTA and inert red dye: 1 vial 5.5ml 700kBq, Ready for use. Calibrator 0 in bovine serum with thymol: 1 vial lyophil, Add 2.0 ml distilled water. Calibrators 1-7 in horse serum with thymol (see exact value on vial labels): 7 vials lyophil, Add 2.0 ml distilled water. Wash solution (TRIS-HCl): 1 vial 10ml, Dilute 70x with distilled water (use a magnetic stirrer). Controls 1 and 2 in human plasma and thymol: 2 vials lyophil, Add 1 ml distilled water. Note: 1 µIU of the calibrator is equivalent to 1 µIU of the 2nd IRP 80/558.
Materials Required but Not Supplied	Distilled water Pipettes for delivery of: 50 µ 200 µ 1 ml and 2 ml (the use of accurate pipettes with disposable plastic tips is recommended) Vortex mixer Magnetic stirrer Tubes shaker (700 rpm) 5 ml automatic syringe (Cornwall type) for washing Aspiration system (optional) Any gamma counter capable of measuring ^{125}I may be used (minimal yield 70%).

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