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HUMAN THYROTROPIN (hTSH) EXTRACT PREPARED AT THE IPEN (BRAZIL): VALIDATION AS A STANDARD PREPARATION IN TWO TYPES OF RADIOLIGAND ASSAYS

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With the objective to introduce a local secondary standard hTSH preparation for use in radioassays, an hTSH extract, prepared in our laboratory by the method described by Mc Lean and col., 1981, was tested in two hTSH-radioassay systems: the immunoradiometric assay (IRMA) from NETRIA, and a radioimmunoassay (RIA) set up with NIADDK reagents.

Each ampoule of lyophilized hTSH-IPEN standard contained 0.6ug extract, 10mg lactose, 4mg bovine serum albumin and 1mg ammonium acetate.

IRMA results: standard curves using hTSH from NETRIA, NIH and IPEN were parallel ($p=0.05$). Immunopotencies established for the hTSH-IPEN preparation, in relation to the NIADDK standard (WHO 68/38) and to the NETRIA standard (WHO 80/558), were 0,13IU/mg and 0,10IU/mg, respectively. The results of 3 control samples, ranging from low to high TSH concentration, read from the NETRIA and the standardized IPEN standard curves, showed a highly significant correlation: $r=0.996$, $p<0.001$, slope=1,021, $n=16$.

RIA results: the standard curves of the IPEN and NIH preparations were also parallel. The immunopotency of the IPEN standard remained unchanged in the preliminary 6 months test period.

We conclude that the hTSH-IPEN preparation is suitable as a secondary standard in IRMA and RIA systems, once an accurate standardization is performed.

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