Good and Stenhouse,[22] 1966 reported an improved bioassay for TSH by the application of a design balance for residual effects. The modified method has a better increased sensitivity and precision.

MATERIALS

Chemicals, biologicals and animal

1. Albino mice* of both sexes, about 10 weeks of age at a weight of 20-25 g.
2. Serum samples of normal subjects, myxedema and thyrotoxicosis patients were obtained from the Division of Nuclear Medicine, Department of Radio--logy, Siriraj Hospital.
3. Iodine-125 (2 mCi/ml of sodium iodide in M/10 aqueous sodium thiosulphate, from the Radiochemical Centre, Amersham, England) was diluted to 500 uCi/10m
4. Thytropar (thyrotropin) obtained from Armour Pharmaceutical Company, Chicago, Illinois 60690, U.S.A., was freshly prepared before use.
5. L-Thyroxine (3,3',5,5'-tetraiodo-L-thyronine) obtained from Sigma Chemical Company, St. Louis, U.S.A., stored below 0°C, was diluted to 0.5 ug/ml and freshly prepared before use.
6. 3,3',5-triiodo-L-thyronine (T_3) obtained from Sigma Chemical Company, St. Louis, U.S.A., stored below 0°C, added to the drinking water in the concentration of 0.5 ug/ml and freshly prepared before use.

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*Kindly provide by Prof. Dr. Sukhum Patrakom, M.R.V. Dr. Puthipongse Voravuthi, Dr. Pachara Visutakul and Dr. Siri Swasdhikosol.

7. Dog biscuit* of low iodine content (100 ug/Kg) was obtained from W.Menz & Co. Ltd., Galway Avenue, Marsden, South Australia.

The following iodine-free diet may be used in place of the dog biscuit.

Ingredients of Leblond:**

Maize meal	70	%	=	46	lbs.
Wheat gluten	16	%	=	10½	lbs.
Yeast	10	%	=	6	lbs. 12 oz.
$CaCO_3$	1	%	=	284	g
NaCl	1	%	=	284	g

Equipments and glasswares

1. Test tubes 10x75 mm and test tube racks
2. Heparinized capillary tubes
3. Surgical blades No.24
4. Spot test plates
5. pipettes 0.1 ml
6. Microsyringes (Terumo) 100 ul
7. Disposable syringes 1.0 ml
8. Electronic Desk-Top Computer (Olivetti Programma 101)
   Cod. Mark.: 02-02-03/9-0-E, Cod. Mag.: 3940758 V
9. Automatic Gamma Well Counter System (Nuclear Chicago Model 4230 and 4233).

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* Kindly provided by Prof. Basil Hetzel of Monash University, Australia.

**Quoted from Radioisotope Unit, Auckland Hospital, New Zealand.