

## RIAK - 1

# **KIT FOR INSULIN**

RIAK - 1 is BRIT's radioimmunoassay (RIA) kit for the quantitative measurement of Insulin in human serum.

Insulin is a polypeptide hormone secreted by the beta cell-islets of pancreas and plays a major role in carbohydrate, lipid and protein metabolism. Estimation of serum insulin is important in differentiation and diagnosis of various types of diabetes.

#### **SALIENT ASSAY FEATURES**

- Reliable, time tested liquid phase separation system
- Lyophilized kit reagents
- Standard range (0- 200 μlU/ml) and sensitivity (5 μlU/ml) to cover the entire clinical need
- Quality control samples at two levels are a part of the standard kit
- Economically priced

## **REAGENTS PROVIDED**

	COMPONENT	RIAK - 1 100 estimations	RIAK - 1 200 estimations	RIAK - 1 500 estimations
1.	Anti-insulin antibody (lyophilized)	1 vial	2 vials	5 vials
2.	<sup>125</sup> I - Insulin (tracer) (lyophilized)	1 vial	2 vials	5 vials
3.	Insulin free serum (lyophilized)	1 vial	2 vials	5 vials
4.	Concentrated insulin standard (200 µIU/ vial, lyophilized*)	1 vial	2 vials	2 vials
5.	Control serum A & B (lyophilized)	1 vial each	1 vial each	2 vials each
6.	Anti - Guinea Pig antibody (second antibody, lyophilized)	1 vial	2 vials	5 vials
7.	Assay buffer (ready to use)	1 vial	2 vials	5 vials
8.	Polyethylene glycol solution (ready to use)	1 vial	2 vials	5 vials

<sup>\*</sup> Working standards are prepared using this concentrated standard as per the directions in kit protocol



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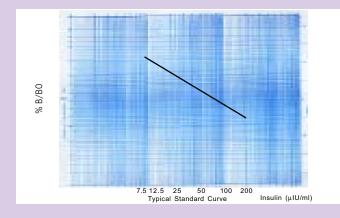


#### **ASSAY PROCEDURE\*\***

- Reconstitute the reagents as per the directions given in kit protocol
- Number plain polystyrene assay tubes and arrange in a test tube rack
- Add 100 μl of respective standards, free serum, control or sample
- Add 100 μl of insulin antibody
- Vortex and incubate overnight
- Add 100 μl of tracer, vortex and incubate for 3h at room temperature
- $\bullet \quad$  Add 100  $\mu l \,$  of anti guinea pig antibody and 1 ml of polyethylene glycol (PEG) solution to all the tubes
- Vortex and incubate for 20 min at room temperature
- Centrifuge all the tubes for 20 min at 3000 rpm at room temperature
- Discard the supernatant and count the tubes for 1 min in a NaI (TI) scintillation counter calibrated for I - 125
- Calculate the results

#### **TYPICAL STANDARD CURVE DATA**

Tube No.	СРМ	Average CPM	Corrected average CPM	% B/Bo
Bkg	150			
Total	29765, 29865	29815	29665	
NSB	679,705	692	542	1.8 (NSB)
0 μIU/ml	14052,13982	14017	13325	45 (B <b>0</b> /T)
7.5 μIU/ml	12873,12917	12895	12203	92
12.5 μIU/ml	12249, 12213	12231	11539	87
25 μIU/ml	10936, 10896	10916	10224	77
50μIU/ml	8675,8695	8685	7993	60
100 μIU/ml	6238,6212	6225	5533	42
200 μIU/ml	4276, 4254	4265	3573	27







For placing the orders and further details please contact Customer Support Services Cell (CSSC)

### **Board of Radiation and Isotope Technology**

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<sup>\*\*</sup> Refer to kit protocol for detailed assay procedure