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BASIC STUDY ON RIA-GNOST PROCOLLAGEN III PEPTIDE. K.Kitamura,M.Akita,T.Matsuishi and N.Suzuki.Research and Development Laboratories,Hoechst Japan Limited,Saitama.

Procollagen III peptide (P III P) having a molecular weight of about 45,000 is a degradation product of type III procollagen, a precursor of type III collagen, and its kinetics in blood has been considered to [1] have close relationship with liver diseases. We have made a basic study on RIA-gnost Procollagen III Peptide (RIA kit for P III P assay) with pooled sera of low, middle and high P III P levels and obtained favorable results. The C.V. ranged between 1.6% and 3.4% (Table 1) and the mean yield was 106.5% (Table 2).

Table 1 Reproducibility

P III P level of pooled sera	Assay value (ng/ml)	C.V. (%)
Low	5.8±0.2	3.4
Middle	15.1±0.4	2.6
High	31.9±0.5	1.6

Table 2 Recovery

Added (ng/ml)	Expected (ng/ml)	Measured (ng/ml)	Recovery (%)
5.8	4.7	5.0	106.4
15.1	9.4	9.9	105.3
31.9	17.8	19.2	107.9

Reference:1) European Journal of Clinical Investigation 9, 451-459 (1979)

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BASIC AND CLINICAL EVALUATION OF MAGNETIC DIGOXIN KIT – APPLICATION TO STAT ASSAY –. T.Takahashi,A.Sato,T.Sakaki,D.Tugino, K.Kashiwada,K.Someya,K.Masuhara and Y.Sasaki. St.Marianna Medical College, Kanagawa.

We have studied about basic evaluation of magnetic digoxin RIA kit using magnetic separator,its correlation with other methods,and then its application to stat assay. In complete assay,within-assay error was 7.7–1.7 C.V.% in the range of the serum digoxin concentration of 0.26 to 2.97 ng/ml. Between-assay error was 4.9–7.2 C.V.%(range: 0.69–3.05 ng/ml). Average recovery rate was 101.0%. Results of dilution test and the correlation with Phadebas kit (r=0.985) were satisfactorily good. Linear standard curve was obtained by taking Bo/Bx as an ordinate. The stat assay was performed using 0 and 2.5 ng/ml standard serum with 15 minutes incubation. Within-assay error was 3.2–6.7 C.V.%(range:0.75–3.16). The correlation between complete assay and stat assay was good (r=0.995). This method was found useful for the planning and assessment of appropriate digoxin regimen.

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BASIC AND CLINICAL EVALUATION OF MYOGLOBIN RADIOIMMUNOASSAY KIT (PART II).
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Basic evaluation of myoglobin (Mb) RIA kit was performed with special regard to the purity of I-125 Mb on three kinds of Mb RIA kits; "DAIICHI", "MIDORI JUJI (CIS)" and "EIKEN (NMS)". Two radioactive peaks were observed in the electrophresis of I-125 Mb with Whatman 3MM paper. Percentages of the two peaks obtained in paper electrophoresis were 65.3 and 20.0 % with "DAIICHI", 87.5 and 10.5 % with "CIS", 76.0 and 17.0 % with "NMS" kit. Three radioactive peaks were obtained in the case of sephadex G-100 columnchromatography of I-125 Mb. The percentages of these three peaks were 8.6, 73.2 and 18.2 % with "DAIICHI", 11.8, 42.4 and 45.8 % with "CIS", 5.4, 67.2 and 27.4 % with "NMS" kit. The second peak of I-125 Mb in columnchromatography had the highest binding with anti - Mb antibody in each kit. From these results, heterogeneity of I-125 Mb was found in the three Mb RIA kits with paperchromotography and columnchromotography.