

# Penetapan kadar asam folat serum dengan teknik enzyme labeled protein ligand binding assay yang disempurnakan = Determination of serum folic acid concentration using improved enzyme labeled protein ligand binding assay

Muhamad Arif Budiman, author

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## Abstrak

Latar Belakang. Penelitian ini bertujuan untuk membakukan teknik pengukuran asam folat serum menggunakan protein ikat folat PIF yang diisolasi dan dimurnikan secara utuh dari susu sapi segar dengan teknik enzyme labeled protein ligand binding assay ELPLBA . Metode. Metode yang digunakan adalah metode eksperimen yang menguji validitas dan perbandingan teknik ELPLBA untuk pembakuan teknik pengukuran folat serum. Hasil. Hasil isolasi dan pemurnian PIF menghasilkan kadar 3 tiga mg/mL. Identifikasi SDS-PAGE dan Western blot menunjukkan 3 tiga pita protein yang diperiksa adalah protein ikat folat. Validitas teknik uji keterulangan menunjukkan nilai yang dapat diterima CV. ....Background. This study was aimed to standarized technique of folic acid level serum measurment using folate binding protein FBP that isolated and purified from fresh bovine milk with enzyme labeled protein ligand binding assay ELPLBA technique. Method in this study, we performed an experiment research validated dan compared measurement techniques of ELPLBA with competitive ELISA for the standardization of the serum folic acid measurement technique. Results. FBP concentration yielded from isolated and purification was resulted 3 mg mL. SDS PAGE and western blot result showed 3 three protein bands that was confirmed to be FBP. Validity test repeatability indicate an acceptable CV 10 , whereas reproducible test showed poor results over a 5 day period. The results of the accuracy test of the enzyme labeled protein ligand binding assay technique showed good accuration. Linearity test of two samples showed quite linear results. Comparison of folic acid level measurement in serum between ELPLBA and ELISA technique showed there is no difference between both technique based on independent test T test at 95 confidence level. Conclusion. the enzyme labeled protein ligand binding assay technique on serum folic acid measurements were quite valid dan equivalent to the results obtained by competitive ELISA techniques.