

## ABSTRAK

Uji stabilitas bahan kontrol sangat penting karena dengan adanya kestabilan menunjukkan bahwa bahan kontrol tidak berubah secara signifikan selama penyimpanan. Penggunaan bahan kontrol komersial tidak layak secara ekonomi untuk banyak negara karena tidak tersedianya atau mahalnnya bahan kontrol. Pembuatan plasma manusia liofilisat akan banyak berguna bagi beberapa laboratorium kecil dan swasta termasuk laboratorium puskesmas. Penelitian ini bertujuan untuk mengetahui stabilitas plasma liofilisat buatan sendiri sebagai bahan kontrol kualitas pada laboratorium kimia klinik terhadap parameter total protein dan albumin.

Jenis penelitian ini adalah penelitian eksperimental dengan rancangan penelitian *time series group design*. Penelitian ini dilakukan di Laboratorium Kimia Klinik Poltekkes Surabaya Jurusan TLM dan di Laboratorium Pramita. Sampel diambil dari 1 responden yang disimpan pada suhu 2-8°C.

Hasil pemeriksaan kadar total protein mean minggu ke-1 sampai 8 adalah 6,42 mg/dL, 6,65 mg/dL, 6,73 mg/dL, 6,50 mg/dL, 6,25 mg/dL, 6,47 mg/dL, 6,28 mg/dL, 6,28 mg/dL. Hasil pemeriksaan kadar albumin mean ke-1 sampai 8 adalah 3,99 mg/dL, 3,91 mg/dL, 3,63 mg/dL, 3,80 mg/dL, 3,97 mg/dL, 3,43 mg/dL, 3,60 mg/dL, 3,72 mg/dL. Hasil penelitian ini menunjukkan analisa grafik Leavy Jenning memperlihatkan Plasma Liofilisat kadar Total Protein dan Albumin masih di dalam batas  $\pm 2SD$ . Dan pada uji regresi hasil nilai KD kadar Total protein sebesar 40,32% dan nilai KD kadar Albumin sebesar 32,54%, yang menunjukkan lama penyimpanan kadar total protein dan albumin berpengaruh pada kestabilan plasma liofilisat. Sehingga dapat disimpulkan bahwa pemeriksaan kadar total protein dan albumin yang disimpan pada suhu 2-8°C stabil selama 8 minggu.

**Kata kunci** : stabilitas, plasma liofilisat, bahan kontrol, total protein, albumin

## **ABSTRACT**

*The stability test of the control material is very important because the stability indicates the control material does not change significantly during storage. The use of commercial control is not economically feasible in many countries because of the unavailability or high cost. Therefore, the manufacture of lyophilized human plasma will be great use to several small and private laboratories, including puskesmas laboratories. This study aims to determine the stability of homemade lyophilized plasma as a quality control agent in a clinical chemistry laboratory on total protein and albumin parameters.*

*This type of research is an experimental research with a time series group design. This research was conducted at the campus laboratory and Pramita Laboratory. Samples were taken from 1 respondent in April - May 2022, stored at a temperature of 2-8°C and checked every week for 8 weeks.*

*The results of the examination of total protein levels mean weeks 1 to 8 were 6.42 mg/dL, 6.65 mg/dL, 6.73 mg/dL, 6.50 mg/dL, 6.25 mg/dL, 6, 47 mg/dL, 6.28 mg/dL, 6.28 mg/dL. The results of the examination of albumin levels on average 1 to 8 were 3.99 mg/dL, 3.91 mg/dL, 3.63 mg/dL, 3.80 mg/dL, 3.97 mg/dL, 3, 43 mg/dL, 3.60 mg/dL, 3.72 mg/dL. The results Leavy Jennings' chart analysis showed plasma lyophilized test results for total protein and albumin levels were still within the limit of  $\pm 2SD$ . And in regression test the KD value for Total protein 40.32% and the KD value for Albumin 32.54%, showed that the storage time for total protein and albumin had effect on stability of plasma lyophilized. So it can be concluded the examination of total protein and albumin levels stored at a temperature of 2-8°C was stable for 8 weeks.*

**Keywords** : *stability, plasma lyophilized, control material, total protein, albumin*