

PERBEDAAN KADAR TOTAL PROTEIN BERDASARKAN FREKUENSI PENGGUNAAN KUVET PLASTIK

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ABSTRAK

Protein merupakan molekul yang sangat vital untuk organisme dan terdapat di semua sel. Protein adalah kumpulan polimer yang tersusun dari monomer-monomer asam amino yang dihubungkan satu sama lain dengan ikatan peptida. Pemeriksaan kadar total protein dapat dilakukan dengan beberapa metode, salah satunya metode Biuret yang menggunakan spektrofotometri. Pemakaian kuvet sekali pakai bertujuan meminimalkan kontaminasi dari bahan pencuci, penggunaan kuvet secara berulang-ulang seringkali dilakukan dengan alasan menghemat belanja laboratorium. Tujuan penelitian adalah melihat perbedaan kadar total protein berdasarkan frekuensi penggunaan kuvet. Jenis penelitian adalah deskriptif analitik. Populasi penelitian siswa SMK Ma'arif Ajibarang. Sampel penelitian adalah serum darah sewaktu yang diambil dari 9 responden, dilakukan 3 perlakuan. Data yang diperoleh diuji normalitasnya menggunakan *Shapiro Wilk*. Data kemudian diuji menggunakan *One Way Anova*. Kadar total protein menggunakan kuvet baru berada dalam batas normal dengan nilai rata-rata 6.9 g/dL, kadar total protein pada kuvet 5 kali penggunaan ada 4 sampel yang mengalami penurunan dari nilai normal dengan rata-rata 5.9 gr/dL. Kadar total protein pada kuvet dengan 10 kali penggunaan terdapat 7 sampel mengalami penurunan dari nilai normal dengan rata-rata 5.1 gr/dL. Kadar total protein berdasarkan frekuensi penggunaan kuvet memiliki perbedaan yang bermakna nilai signifikansi $p\text{-value} < 0,05$.

Kata Kunci: Kuvet baru, Kuvet plastik, Total Protein

DIFFERENCES OF TOTAL PROTEIN LEVELS BASED ON FREQUENCY OF PLASTIC QUARTER USE

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ABSTRACT

Protein is a molecule that is vital for organisms and is present in all cells. Protein is a collection of polymers composed of amino acid monomers that are connected to one another by peptide bonds. Examination of total protein levels can be done with several methods, one of which is the Biuret method that uses spectrophotometry. The use of disposable cuvettes aims to minimize contamination from washing ingredients, repeated use of cuvettes is often done on the grounds of saving laboratory spending. The aim of the study was to see the difference in total protein levels based on the frequency of use of cuvettes. This type of research is descriptive analytic. The research population was Ma'arif Ajibarang Vocational High School students. The study sample was blood serum when taken from 9 respondents, 3 treatments were carried out. The data obtained were tested for normality using Shapiro Wilk. The data was then tested using One Way Anova. The total protein content using new cuvettes is within normal limits with an average value of 6.9 g / dL, the total protein level in the cuvette 5 times using 4 samples which have decreased from normal values with an average of 5.9 gr / dL. Total protein levels in cuvettes with 10 times of use there are 7 samples have decreased from normal values with an average of 5.1 gr / dL. Levels of total protein levels based on the frequency of use of cuvettes have a significant difference in the signification value of p-value 0,000 (p-value <0.05).

Keywords: new cuvette, plastic cuvette, total protein