INTISARI

PRASTIYO, D. D., 2020**.** *Penetapan Kadar Vitamin B1 dan Vitamin C pada Susu UHT dengan Metode Muultiwavelaght Spektrofotometri UV*. Progam Studi D-III Analis Farmasi dan Makanan, Fakultas Farmasi, Universitas Setia Budi, Surakarta.

Vitamin B1 dan vitamin C merupakan vitamin yang larut dalam air yang berperan sangat penting bagi manusia. Penelitian ini bertujuan untuk mengetahui kadar vitamin B1 (Thimain HCl) dan vitamin C (Asam Ascorbat) pada susu UHT dengan metode spektrofotometri UV multiwavelangth.

Penelitian ini dilakukan dengan metode Spektrofotometri UV Multiwavelagth. Sampel yang digunakan adalah sampel Susu UHT diberi lebel merek A; B; dan C. Kemudian dilakukan penetapan Serapan panjang gelombang maksimum, Operating time, Validasi, Serapan spektrum lima titik panjang gelombang dan penetapan kadar vitamin B1 dan vitamin C menggunakan spektrofotometri UV.

Hasil penelitian diperoleh panjang gelombang maksimum vitamin B1 232 nm dan vitamin C 266 nm. Operating time vitamin B1 0 menit dan vitamin C 11 menit. Validasi tunggal yang di peroleh vitamin B1 akurasi 100,10%, presisi 0,26 %, dan vitamin C akurasi 100,18 %, presisi 0,53 %. Untuk validasi campuran yang di peroleh vitamin B1 akurasi 100,72 % presisi 1.24 %, dan vitamin C akurasi 99,77 % presisi 0,92%. Kadar vitamin B1 pada susu UHT merek A; B; dan C dimana kadar vitamin B1 setiap sampel merek A 0,000752 %; merek B 0,00676 %; dan merek C 0,00575 %, untuk vitamin C tidak dapat di tetapkan kadarnya disebabkan absorbansi pada daerah 266 nm sangat kecil menyebabkan perhitungan matriks yang memberikan hasil konsentrasi negatif.

Kata kunci: Susu UHT, Vitamin B1, Vitamin C, Multiwavelaght, Spektrofotometri UV

ABSTRACT

PRASTIYO, DD, 2020. Determination of Vitamin B1 and Vitamin C Levels in UHT Milk by the UV-Vis Spectrophotometry Muultiwavelaght Method. D-III Study Program Pharmacy andAnalyst Food, Faculty of Pharmacy, Setia Budi University, Surakarta.

Vitamin B1 and vitamin C are water-soluble vitamins that play a very important role in humans. This study aims to determine the levels of vitamin B1 (Thimain HCl) and vitamin C (Ascorbic Acid) in UHT milk by using spectrophotometry UV multiwavelangth method.

This research was conducted using the Multiwavelagth method. The samples used were UHT milk samples labeled with brand A; B and C. Then performed the determination ofabsorption the maximum wavelength, operating time, the absorption spectrum of five wavelength points and the determination of the levels of vitamin B1 and vitamin C using UV spectrophotometry.

The results showed that the maximum wavelength of vitamin B1 232 nm and vitamin C was 266 nm. Operating time for vitamin B1 0 minutes and vitamin C 11 minutes. The single validation obtained by vitamin B1 has an accuracy of 100.10%, a precision of 0.26%, and vitamin C with an accuracy of 100.18%, a precision of 0.53%. For the validation of the mixture, vitamin B1 has an accuracy of 100.72%, precision is 1.24%, and vitamin C has an accuracy of 99.77%, precision is 0.92%. Vitamin B1 levels in brand A UHT milk; B; and C where the level of vitamin B1 for each sample brand A is 0.000752%; brand B 0.00676%; and brand C 0.00575%, for vitamin C the level cannot be determined because the absorbance in the 266 nm area is very small causing the matrix calculation to give negative concentration results.

Keywords: UHT milk, Vitamin B1, Vitamin C, Multiwavelaght, spectrophotometry UV