**Universitas Indonesia Library >> UI - Skripsi Membership**

# Pengaruh formulasi transfersom terhadap stabilitas dan aktivitas antioksidan glutation dalam sediaan krim antiaging = The effect of transfersome formulation on stability and antioxidant activity of glutathione in antiaging cream

Friaini Zahra Murti, author

Deskripsi Lengkap: https://lib.ui.ac.id/detail?id=20492803&lokasi=lokal

---

Abstrak

Pada penelitian ini glutation akan diformulasikan dalam krim transfersom dan krim nontransfersom, lalu akan diteliti stabilitas kimia dan stabilitas fisik dari kedua krim tersebut. Stabilitas fisik diuji dengan uji stabilitas cycling test dan centrifugal test, berdasarkan hasil uji krim transfersom relatif lebih stabil. Stabilitas kimia dinilai dengan menggunakan Kromatograsfi Cair Kinerja Tinggi dengan kondisi analisis yang digunakan adalah laju alir 0,8 mL/menit, panjang gelombang maksimum 200 nm dan fase gerak dapar fosfat pH 3,0. Waktu retensi glutation 5,747 menit, faktor ikutan 1,219, regresi linear y = 14050x + 68846, r = 0,9992, LOD 6,78 µg/mL dan LOQ 22,63 µg/mL.
Uji stabilitas kimia dengan uji stabilitas dipercepat dengan kondisi 40°C/70% RH menunjukkan hasil kadar tersisa pada krim transfersom 83,44% dan krim non-transfersom 47,92%. Uji aktivitas antioksidan dengan metode DPPH menunjukkan hasil bahwa glutation pada krim transfersom mempunyai nilai IC50 11,89 µg/mL dan pada krim non-transfersom mempunyai nilai IC50 15,57 µg/mL. Uji penetrasi dengan sel difusi Franz menunjukkan hasil Fluks krim transfersom 510,38 µg.cm-2.jam-1 lebih tinggi dibandingkan krim non-transfersom yaitu 340,12 µg.cm-2.jam-1.
.....
In this study glutathione will be formulated in transferome cream and non-transferome cream, then chemical stability and physical stability will be examined. Physical stability was tested by cycling test and centrifugal test stability tests, where the results of transferome cream were relatively more stable. Chemical stability was assessed by using High Performance Liquid Chromatography with the flow rate 0.8 mL/minute, maximum wavelength 200 nm and mobile phase phosphate buffer pH 3.0. Retention time 5.747 minutes, tailing factor 1.219, linear regression y = 14050x + 68846, r = 0.9992, LOD 6.78 µg/mL and LOQ 22.63 µg/mL.
Chemical stability tested by accelerated stability test with conditions of 40°C/70% RH during 3 months, the results of the remaining levels of transferome cream were 83,44% and non-transfersom cream were 47,92%. The antioxidant activity test using DPPH methode showed that glutathione in transferome cream had an IC50 value 11.89 µg/mL and in non-transferome cream had an IC50 value 15.57 µg/mL. Penetration test using Franz cell diffusion shows that Flux of transfersome cream were 510.38 µg.cm-2.hour-1, higher than non-transferome creams which are 340.12 µg.cm-2.hour-1.