SKRIPSI

SEPTIANA

PENGARUH ASAM 4-HIDROKSISINAMAT DAN
ASAM 4-METOKSISINAMAT TERHADAP
AKTIVITAS TIROSINASE

FAKULTAS FARMASI UNIVERSITAS Airlangga
BAGIAN KIMIA FARMASI
SURABAYA
2003
PENGARUH ASAM 4-HIDROKSISINAMAT DAN ASAM 4-METOKSISINAMAT TERHADAP AKTIVITAS TIROSINASE

SKRIPSI
Dibuat Untuk Memenuhi Syarat Mencapai Gelar Sarjana Farmasi Pada Fakultas Farmasi Universitas Airlangga
2003

Oleh:

Septiana
NIM : 059912172

Skripsi ini telah disetujui
tanggal Oktober 2003 oleh :

Pembimbing Utama

Dr. H. Purwanto
NIP. 130 541 900

Pembimbing Serta

Dr. H. Achmad Syahrani, Apt., MS
NIP. 130 809 077
ABSTRACT

Tyrosinase is known to be a key enzyme for melanin biosynthesis. Therefore, inhibition in tyrosinase activity will cause a decreasing in melanin production.

The inhibition of cinnamic acid and its derivatives against tyrosinase has been studied as the effort to find a new effective skin-lightening agent. 4-hidroxycinnamic acid and 4-metoxicinamic acid as two of cinnamic acid derivatives was tested to know its effect on inhibiting tyrosinase.

To assess the efficacy of tyrosinase inhibition, tyrosinase activity using L-Tyrosine as a substrate was assayed spectrofotometrically with the dopachrome method.

Michaelis-Menten constant (Km) and maximum velocity (Vmax) of the enzyme activity were showed by Lineweaver-Burk's plots.

Key words: tyrosinase, 4-hidroxycinnamic acid, 4-metoxicinamic acid, inhibitory activity