

ABSTRAK

Nama : Wahyuningtyas
Program Studi : Farmasi
Judul : Uji Aktivitas Penghambatan Enzim Tirosinase Oleh Ekstrak Etanol Daun Keladi Tikus (*Typhonium flagelliforme* (Lodd.) Blume) Secara *In Vitro*

Hiperpigmentasi merupakan peristiwa yang terjadi akibat produksi pigmen kulit yang berlebihan. Warna kulit sangat dipengaruhi oleh keberadaan melanin, dimana keberadaan melanin sangat dipengaruhi oleh enzim tirosinase. Daun keladi tikus (*Typhonium flagelliforme* (Lodd.) Blume) merupakan salah satu tanaman yang memiliki senyawa flavonoid yang bermanfaat sebagai antioksidan dan inhibitor tirosinase. Penelitian ini bertujuan untuk menguji aktivitas ekstrak etanol daun keladi tikus sebagai inhibitor tirosinase. Daun keladi tikus pada penelitian ini diperoleh melalui proses ekstraksi menggunakan pelarut etanol 96 % dengan metode maserasi. Ekstrak etanol kental daun keladi tikus diuji penapisan fitokimia, kadar flavonoid total, dan uji aktivitas tirosinase. Metode yang digunakan untuk uji penghambatan tirosinase yaitu metode enzimatik secara *in vitro*. Hasil penelitian ini menunjukkan bahwa terdapat kandungan senyawa flavonoid total sebanyak 0,7378 % (b/b) dan aktivitas inhibitor dapat dilihat dari nilai IC_{50} untuk reaksi difenolasi (substrat L-DOPA) yaitu 13,307 mg/mL. Nilai tersebut lebih besar jika dibandingkan asam kojat difenolasi 0,093 mg/mL, sehingga ekstrak etanol daun keladi tikus berpotensi untuk menghambat aktivitas tirosinase.

Kata Kunci :

Daun keladi tikus, IC_{50} , inhibitor tirosinase

ABSTRACT

Name : Wahyuningtyas
Study program : Pharmacy
Title : Tyrosinase Enzyme Inhibition Activity Test by Ethanol Extract of Leaf Taro (*Typhonium flagelliforme* (Lodd.) Blume) *In Vitro*

Hyperpigmentation is an event that occurs due to excessive production of skin pigment. Skin color is strongly influenced by the presence of melanin, where the presence of melanin is strongly influenced by the enzyme tyrosinase. Rodent tuber leaves (*Typhonium flagelliforme* (Lodd.) Blume) are one of the plants have flavonoid compounds used as antioxidants and tyrosinase inhibitors. The aim of this study was to test the ethanol extract of rat taro leaves as a tyrosinase inhibitor. The taro leaves of rats in this study were obtained through an extraction process using 96% ethanol solvent by maceration method. The thick ethanol extract of rat taro leaves was tested for phytochemical screening, total flavonoid levels, and tyrosinase activity test. The method used for tyrosinase inhibition test is enzymatic method in vitro. The results of this study indicate that there is a total flavonoid compound content of 0.7378% (b/b) and the inhibitor activity can be seen from the IC₅₀ value for the dipenolation reaction (L-DOPA substrate) which is 13.307 mg / mL. This value is greater when compared with 0.093 mg / mL of phenolic acid, so that the ethanol extract of rat taro leaves has the potential to inhibit tyrosinase activity.

Keyword :

Typhonium flagelliforme (Lodd.) Blume, IC₅₀, tyrosinase inhibitors