

ABSTRACT

Etil p-metoxycynamate (EPMC) is the second largest compound in *Kaempferia galanga L.* It contains about 31,36% of the EPMC. EPMC has been reported to have anti-diarrhea and anti-inflammatory effects. The purpose of this research is the use of *EPMC* as an antagonism by inhibiting a muscarinic acetylcholine 3 receptor (Ach M₃) which causes smooth muscle contraction at ileum.

Maceration is used to obtain an EPMC extract from *Kaempferia galanga L.* EPMC are identified using Thin Layer Chromatography with the motion phase toluene ethyl : acetate (19:1). The activity of ileum antagonism against acetylcholine test using ileum of hamster isolated *in vitro* with a dose of EPMC 100 µM and 200 µM. The results obtained will be processed into the value of pD₂ and analyzed statistically using One Way ANOVA and carried out to LSD test using trusted level 95%. The AutoDock device is used as a test *In Silico* against the Ach M₃ receptor.

Final results showed that EPMC 100 µM and 200 µM were able to inject the Ach M₃ indicated by shifting barriers of hamster ileum contraction curves against the acetylcholine agonist. The pD₂ value displayed EPMC 100 µM is 7,1 and 200 µM is 6,98 shifted significantly (p<0,5) against pD₂ acetylcholine agonists is 8,16. The value of affinity shows the number -5,2.

Keywords : *ethyl p-metoxycynamate*, Ach M₃, *in vitro*, *in silico*

DAFTAR ISI

HALAMAN JUDUL	i
HALAMAN PENGESAHAN	ii
PERNYATAAN KEASLIAN TULISAN	iii
MOTTO	iv
HALAMAN PERSEMBAHAN	v
KATA PENGANTAR	vi
INTISARI	viii
ABSTRACT.....	ix
DAFTAR ISI.....	x
DAFTAR TABEL.....	xii
DAFTAR GAMBAR	xiii
DAFTAR LAMPIRAN.....	xiv
BAB I PENDAHULUAN.....	1
A. Latar Belakang Masalah.....	1
B. Rumusan Masalah.....	3
C. Keaslian Penelitian.....	3
D. Tujuan Penelitian	4
E. Manfaat Penelitian	4
BAB II TINJAUAN PUSTAKA	5
A. Tanaman Kencur	5
B. Etil Para Metoksi Sinamat	7
C. Ekstraksi dan Isolasi Senyawa Murni Ethyl p-mehoxy cinnamate.....	8
D. Kromatografi Lapis Tipis.....	8
E. Gas Chromatography Mass Spectrometri	8
F. Reseptor Asetilkolin.....	9
G. Interaksi Obat dengan Reseptor	10
H. Uji dengan Organ Terisolasi	12
I. Uji In Silico Dengan Metode <i>Docking</i>	13
J. Kerangka Konsep.....	14
K. Hipotesis	14
BAB III METODE PENELITIAN	15
A. Desain penelitian.....	15
B. Tempat dan Waktu	15
C. Populasi dan Sampel	15
D. Identifikasi Variabel Penelitian.....	15
E. Instrument Penelitian	16