CHAPTER I

INTRODUCTION

Hypertension is a very common abnormality in human,particularly in old subjects than the young ones. In 90% of patients with hypertension, the cause of it is unknown and they are said to have essential hypertension or primary hypertension. About 5-10% caused from several of the other disease processes which are said secondary hypertension. Since hypertension causes a number of serious disorders such as the cardiac muscle hypertrophies, myocardial infarction, arteriosclerosis etc..The manifestation of these abnormalities ranging from the deformity through the sudden death. In addition, at present, essential hypertension is a treatable but not a curable disease. However, its progression can be stopped by appropriate antihypertensive therapy (Ganong, 1991).

Most of antihypertensive drugs are used nowadays are synthetic which are expensive, must be imported and have powerful side effects. So there was an encouragement to use the indigenous plants growing in Thailand which lessen side effects into medicinal field.

3α-dihydrocadambine is an active agent extracted from *Anthocephalus chinensis* leaves. According to the previous study (Pongpan Aroonsang,1984), it was reported to produced hypotensive effect in anaesthetized rats. However, there was not clear about the mechanism of this effect. So this study aimed to reconfirm and clarify the possible mechanism of hypotensive property of this agent which might be worthwhile in turning the natural resource into a medicinal one.