“LANANG” GARLIC (Allium sativa) FROM TEMANGGUNG INHIBITS ACTIVITY ANGIOTENSIN-I CONVERTING ENZYME (ACE)

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ABSTRACT

Hypertension is a disease that does not cause long-term symptoms but can cause life-threatening complications. According to the World Health Organization (WHO), the number of people with hypertension continues to increase globally. The purpose of this study is to prove scientifically “Lanang” garlic a local garlic (*Allium sativum*) from Temanggung to have activities as anti-hypertension. Testing of activity as anti-hypertension was carried out by observing the activity of the peptides contained in Lanang Garlic as inhibitors of the angiotensin I (ACE) conversion enzyme, which is an important enzyme involved in regulating blood pressure and electrolytes and fluid balance. The protein from Lanang garlic was purified through several stages: disturb cell wall, TCA precipitate, and defatted, then cut to obtain peptides with the enzymes chymotrypsin and thermolysin. Each extract was isolated using the column to obtain a fraction which was then tested for its activity as an ACE inhibitor using the Cushman and Cheung methods. The results show that “Lanang” garlic has activity as angiotensin I (ACE) conversion enzyme inhibitor. Thus Lanang garlic can be used as Hypertension.

Kata Kunci: *Lanang garlic from temanggung, angiotensin I (ACE) conversion enzyme inhibitor*