**ACTIVITY OF ANTI-RHEUMATOID ARTHRITIS INSOLUBLE FRACTION HEXANE DICHLOROMEANA EXTRACT OF DAUN SENDOK (Plantago major L.) AGAINST The expression OF INTERLEUKIN-6 AND the NUMBER OF OSTEOBLAST in the FEMALE WISTAR RAT**

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**ABSTRACT**

Rheumatoid arthritis is a chronic inflammatory disorder characterized by inflammation of the joints due to autoimmune reactions in the synovial tissue. Daun Sendok (Plantago major L.) is known to have ursolic acid content that has an anti-rheumatoid arthritis effect. The purpose of the study was to determine the activity of anti-rheumatoid arthritis in the insoluble fraction of the dichlorometana extract daun sendok (Plantago major L.) on the parameters of Interleukin-6 and the amount of osteoblast in female Wistar rats. A total of 36 female Wistar rats were divided into 6 groups. Normal control group, negative control group, positive control group (sodium diclofenac), and 3 groups of treatment of fractionated Daun sendok extract at a dose of 280 mg/kgBB, 420 mg/kgBB, 560 mg/kgBB. All test animals are in induction with Complete Freund Adjuvant Subplantar on Day 0, and the treatment begins on day 16–46. Day 46 The rats was destroyed and then taken from the foot organ for histopathology and immunohistochemical preparations. Data on the number of osteoblasts and interleukin-6 expression were analyzed qualitatively and using the Saphiro-Wilk test and One Way Annova. The results of a qualitative histopathological examination on inflammatory cells showed a decrease in the number of osteoclasts and the formation of osteoblasts occurred in the treatment group, as well as immunohistochemical results obtained indicating that anti-rheumatoid arthritis activity works well especially at a dose of 280 mg / kgBB and a dose of 420 mg / kg BB in significantly reducing the expression of Interleukin-6(p <0.05).

Keywords: Rheumatoid arthritis, daun sendok (Plantago major L.), Interleukin-6