Abstract

ANTIBACTERIAL ACTIVITY OF FRACTIONS OF EXTRACT OF n. HEXANE AND METHANOL OF BIDARA UPAS (Merremia mammosa (Lour.) Hallier f. )’s AGAINST

Mycobacterium tuberculosis

Bidara upas (Merremia mammosa (Lour.) Hallier f.) is known as traditional anti-Tuberculosis plant in Madura. This study was aimed to investigate antibacterial activity of fractions of n. hexane and methanol of Bidara upas inhibiting Mycobacterium Tuberculosis growth. These fractions were made by using vacuum liquid chromatography methods with n. hexane and a mixture of chloroform and methanol as the eluent. A former research showed n.hexane and methanol extracts contained flavonoid and terpenoid components. The antibacterial test for n. hexane, fraction E showed antibacterial activity against Mycobacterium tuberculosis H37RV ATCC 27294 at the concentration of 400-12.5 µg/ml. Its MIC has not been detected yet.

In antibacterial test for methanol extract, 9 fractions at 500 µg/ml concentration was chosen to be analyzed the antibacterial activity. The result showed only one fraction, known as fraction 4, showed antibacterial activity against both Mycobacterium tuberculosis H37Rv 27294 strains. The MIC of fraction 4 is 50 µg/ml.

Keyword : antibacterial, flavonoid, terpen, Merremia mammosa, tuberculosis