

**LAPORAN HASIL PENELITIAN UNGGULAN  
PERGURUAN TINGGI  
Tahun Anggaran 2012**



**FRAKSINASI DAN UJI DAYA HAMBAT BAKTERI  
*Mycobacterium tuberculosis* DARI EKSTRAK *n*-HEKSANA  
DAN METANOL UMBI BIDARA UPAS  
(*Merremia mammosa* Hall.)**

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**UNIVERSITAS AIRLANGGA**

**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