IDENTIFIKASI SENYAWA ANTI MIKROBA EKSTRAK ETANOL BATANG BROTOWALI (Tinospra crispa (L.) TERHADAP Staphylococcus aureus, Bacillus substillis, DAN Candida albicans DENGAN METODE KLT BIOAUTOGRAFI

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Author Order	2 of 2
Accreditation	
Abstract	The brotowali plant (Tinospra crispa (L.) has empirically been used for diseases such as fever, pain relief, lowering sugar levels and as an external medicine for wounds and itching. Brotowali stems are reported to be used to treat infectious diseases because they contain flavonoid compounds, saponins , tannins, glycosides .This study aims to identify the approximate compounds that have antimicrobial activity using bioautography, GCMS and infrared spectrophotometry methods. Extraction was carried out with 96% ethanol solvent by maceration method and partitioned using n-hexane and ethyl acetate. Antimicrobial activity was tested on 96% ethanol extract, n-hexane fraction and ethyl acetate fraction using the paper disc diffusion method against Staphylococcus aureus, Bacillus substillis, and Candida albicans microbes. The results obtained showed that 96% ethanol extract, hexan fraction and water fraction did not show anti-bacterial activity. TLC results of the ethyl acetat fraction produced 4 spots with the largest diameter of the inhibition zone against microbes, so that the testing of the ethyl acetat fraction was continued with the bioautography method. The bioautography test showed that the antimicrobial activity was visible at hrf 42.8, then the extract was analyzed by infrared spectrophotometry and GCMS. Analysis with infrared spectrophotometry showed the presence of functional groups C=O, CH stretch, alkene(C=C), OH. The results of the GCMS analysis and the prediction of the identity of the peaks obtained using the database showed that the largest peak was octanoic acid, 4 hydroxy-3-methoxy vanillin, phenol, 2,4 bis(1,1-dimethyl ethyl, 2 pentadecanone, n-hexadecanoic). palmitic acid .According to the literature, 4 hydroxy-3 methoxy vanillin and palmitic acid were reported to have antimicrobial activity.
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