ANTIVIRAL ACTIVITIES OF ACACIA MANGIUM WILD LEAVES AGAINST HEPATITIS C VIRUS

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BACKGROUND

Hepatitis C virus (HCV) infection is a worldwide public health burden. There is no vaccine yet to prevent the infection1. The current treatment has been improved with direct acting antiviral agents (DAAAs) which dramatically increased the sustain virology responses (SVR5s), however the resistance and high cost issue presented the need of the new agents for HCV. Acacia mangium Wild is a plant from Fabaceae family that was reported to contain with quercetin and procyanidins2. These compounds were evaluated to inhibit HCV with IC50 value of 1.5 μg/ml and 2.06 μM, respectively3,4.

A. mangium Wild As Anti-Hepatitis C Virus

Traditional used to treat liver disease

It has been reported to contain saponins, tannins, flavonoids, xanthones, terpenoids

Contain quercetin and procyanidin that has activity as antiviral HCV with IC50 values of 1.5 μg/ml and 2.06 μM respectively

A. mangium leaves extract, has activity as an antiviral hepatitis C

AIM

This study aimed to examine anti-HCV activities of A. mangium Wild extracts.

METHODS

Extraction Methods of A. mangium Wild Leaves

A. mangium Wild, leaves

Extracted with ethanol 96%

Successively extracted with n-hexane, dichloromethane, methanol

Concentrated with rotary evaporator

Ethanol 96% extract

n-hexane extract

DCM fraction

Methanol fraction

Anti-Hepatitis C Virus Activity

Anti-Hepatitis C Virus Activity

Mode of Action

Seeding 24 hours

Inoculation sample and virus 48 hours

Collect supernatant 24 hours

Virus Titrations 48 hours

Fixation and Immunostaining

Entry Post-entry

Seeding 24 hours

Sample inoculation 3 hours

Washing 48 jam

Collect Supernatant

CONCLUSION

These results indicated that the extracts of A. mangium Wild leaves possess strong inhibition against HCV. Extract of A. mangium Wild may potential candidate to develop as anti-hepatitis C virus agents.

REFERENCE


