

**PERSETUJUAN PEMBIMBING**

Skripsi Yang Berjudul

**SKRINING FITOKIMIA DAN UJI AKTIVITAS ANTIOKSIDAN  
JANTUNG PISANG GOROHO (*Musa acuminata* L.) DENGAN METODE  
1,1-DIPHENYL-2-PICRYLHIDRAZYL (DPPH)**

Oleh:

**ADING ALAMSYAH**

**NIM: 821417144**

Telah diperiksa dan disetujui untuk diuji

**Pembimbing 1**



**Dr. Widy Susanti Abdulkadir, S.Si, M.Si., Apt**  
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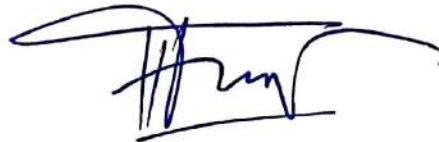
**Pembimbing 2**



**Dr. Hamsidar Hasan, M.Si., Apt**  
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**LEMBAR PENGESAHAN**

Skripsi Yang Berjudul

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**NIM: 821417144**

Telah dipertahankan di depan dewan penguji

**Hari/Tanggal : Senin/ 30 Agustus 2021**

**Waktu : 09.00 – 10.00 WITA**

**Penguji :**

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**3. Dr. Widy Susanti Abdulkadir, S.Si, M.Si., Apt  
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**4. Dr. Hamsidar Hasan, M.Si., Apt  
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**Gorontalo, September 2021**

**Mengetahui**

**Dekan Fakultas Olahraga dan Kesehatan**



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## ABSTRACT

**Ading Alamsyah, 2021. Phytochemical Screening and Antioxidant Activity of Goroho Banana (*Musa acuminata* L.) using DPPH (1,1-diphenyl-2-picrylhydrazyl) Method. Undergraduate Thesis, Bachelor's Degree Program, Department of Pharmacy, Faculty of Sports and Health, State University of Gorontalo. The principal supervisor is Dr. Widysusanti Abdulkadir, S.Si, M.Si, Apt, and the co-supervisor is Dr. Apt. Hamsidar Hasan, S.Si., M.Si.**

Goroho banana (*Musa acuminata* L.) has its own characteristics and is one of the local varieties of banana that is not widely known to people outside North Sulawesi. In addition, it is commonly used as an antioxidant. Antioxidants are substances that can improve the function of layers of blood vessels, inhibit blood platelet aggregation where it can stimulate the production of Nitric Oxide, which causes the relaxation of blood vessels and can reduce the sensitivity of Low-Density Lipoprotein (LDL) to the effects of free radicals. Therefore, this research aims to determine the chemical content and antioxidant activity of Goroho Banana (*Musa acuminata* L.) by using DPPH (1,1-diphenyl-2-picrylhydrazyl) method. Besides, the extraction of samples is carried out by employing extraction graded with n-hexane, chloroform, ethyl acetate, and ethanol solvents. Findings reveal that Goroho banana (*Musa acuminata* L.) peel extract contains Alkaloid and Flavonoid compounds. Meanwhile, the value of antioxidant activity indicates that the IC<sub>50</sub> value for n-hexane, chloroform, ethyl acetate, and ethanol extracts are 6.38, 5.48, 5.11, 4.19 µg/ml, respectively. In conclusion, the IC<sub>50</sub> value discloses that the antioxidant activity is in a strong category.

**Keywords:** Goroho banana blossom, Antioxidant, DPPH, IC<sub>50</sub>

## ABSTRACT

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Goroho banana (*Musa acuminata* L.) has its own characteristics and is one of the local varieties of banana that is not widely known to people outside North Sulawesi. In addition, it is commonly used as an antioxidant. Antioxidants are substances that can improve the function of layers of blood vessels, inhibit blood platelet aggregation where it can stimulate the production of Nitric Oxide, which causes the relaxation of blood vessels and can reduce the sensitivity of Low-Density Lipoprotein (LDL) to the effects of free radicals. Therefore, this research aims to determine the chemical content and antioxidant activity of Goroho Banana (*Musa acuminata* L.) by using DPPH (1,1-diphenyl-2-picrylhydrazyl) method. Besides, the extraction of samples is carried out by employing extraction graded with n-hexane, chloroform, ethyl acetate, and ethanol solvents. Findings reveal that Goroho banana (*Musa acuminata* L.) peel extract contains Alkaloid and Flavonoid compounds. Meanwhile, the value of antioxidant activity indicates that the  $IC_{50}$  value for n-hexane, chloroform, ethyl acetate, and ethanol extracts are 6.38, 5.48, 5.11, 4.19  $\mu\text{g/ml}$ , respectively. In conclusion, the  $IC_{50}$  value discloses that the antioxidant activity is in a strong category.

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