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LAMPIRAN

Lampiran 1 Hasil Determinasi Tanaman Matoa

No	Family	Spesies	Nama Lokal
1.	Sapindaceae	<i>Pometia pinnata</i> J.R.Forst. & G.Forst.	Matoa
2.	Pandanaceae	<i>Pandanus tectorius</i> Parkinson	Pandan laut



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Nomor : 865/K-ID/ANDA/XII/2023
Lampiran : -
Perihal : Hasil Identifikasi

Kepada yth,
Suhaera, M. Pharm. Sci
Di
Tempat

Dengan hormat,
Sehubungan dengan surat permohonan determinasi sampel dari Institut Kesehatan Mitra Bunda tanggal 19 Desember 2023 di Herbarium Universitas Andalas Departemen Biologi FMIPA Universitas Andalas, kami telah membantu mengidentifikasi tumbuhan yang dibawa, dari:

Nama : Suhaera, M. Pharm. Sci
Instansi : Institut Kesehatan Mitra Bunda

Berikut ini diberikan hasil identifikasi yang dikeluarkan dari Herbarium Universitas Andalas.

No	Family	Spesies	Nama Lokal
1.	Sapindaceae	<i>Pometia pinnata</i> J.R.Forst. & G.Forst.	Matoa
2.	Pandanaceae	<i>Pandanus tectorius</i> Parkinson	Pandan laut

Demikian surat ini dibuat untuk dapat digunakan seperlunya.



Padang, 19 Desember 2023
Kepala,

Dr. Nurainas
NIP. 196908141995122001

Lampiran 2. Sertifikat Bakteri *Shigella dysenteriae***Certificate of Analysis**

Product Name: Shigella dysenteriae YP13233
Product Code: 12089212
Lot Number: C53652
Expiration Date: 22.08.2024

*Date format is DD.MM.YYYY

Item	Description	CFU/Loop	Gram Reaction:
BP LC4	Organism exhibits characteristic biochemical, enzymatic, genotypical and/or biochemical reactions. Automated and/or conventional testing was performed and results were within established limits	10(4)	Gram Negative Rod

Macroscopic And Microscopic Morphology:

Colony morphology is consistent with documented referenced description.
Traditional staining is performed.

Appearance : Slant **Nutrient Agar**

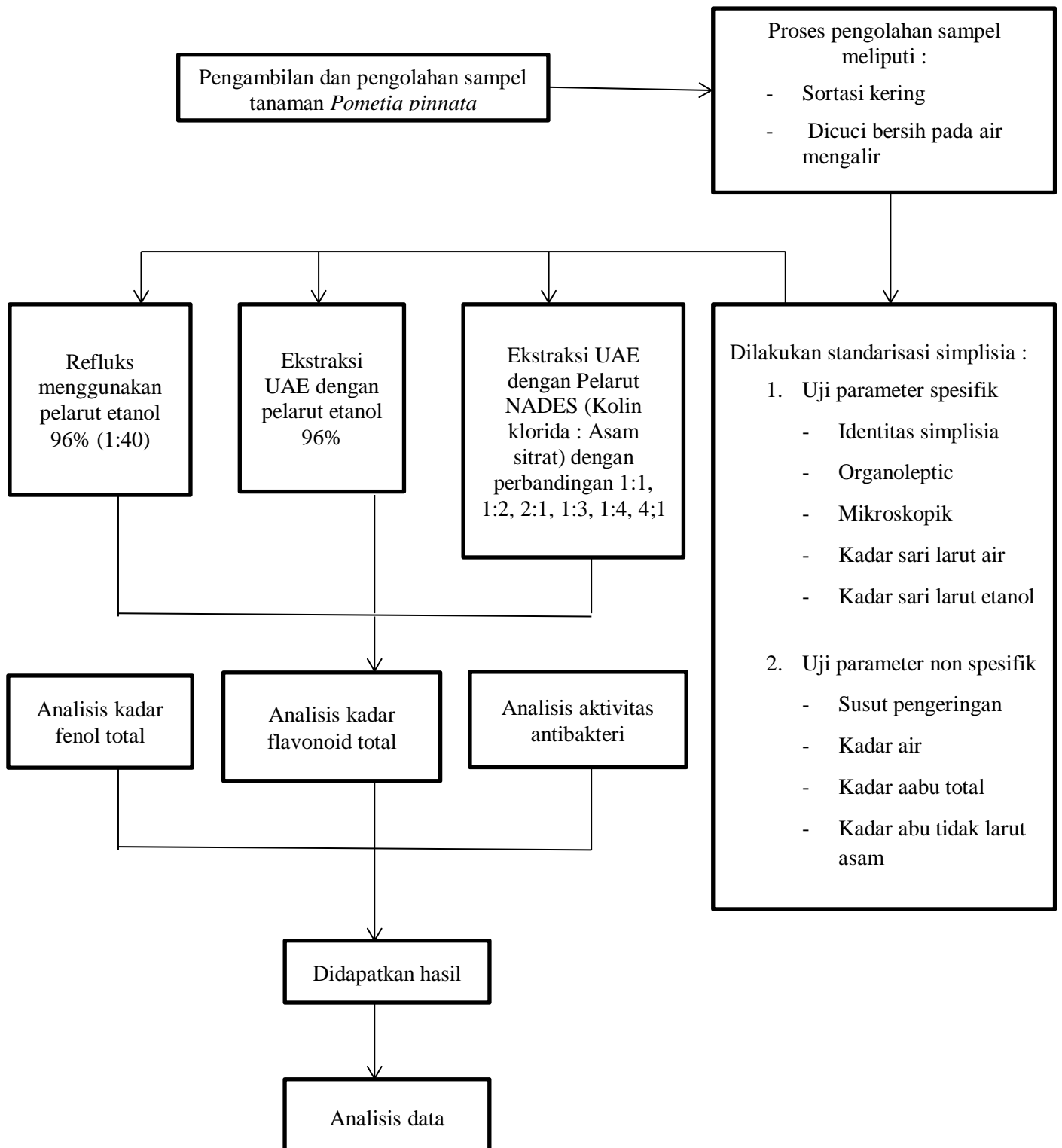
A handwritten signature in black ink, appearing to read "Abinaya Prasraya".

Abinaya Prasraya
Quality Assurance Manager
PT. Indonesia Paramartha Laboratories

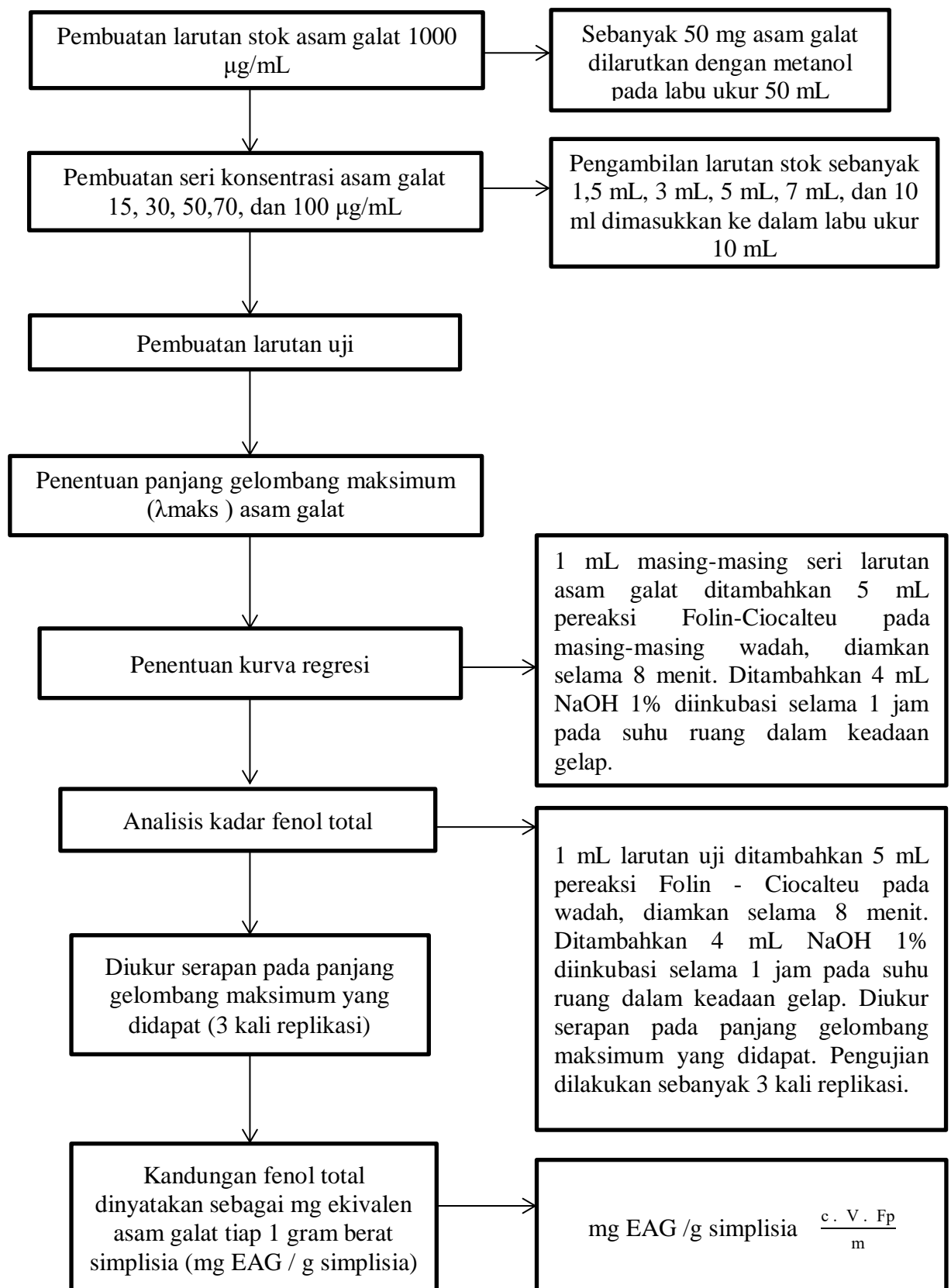
Lampiran 3. Sertifikat Bakteri *Bacillus cereus*

	
Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release	
SPECIFICATIONS: Product Name: Bacillus cereus Catalog Number: 0200 Lot Number: 200-38** Reference Number: ATCC® 14579™* Passage from Reference: 2 Expiration Date: 2023/07/31	RELEASE INFORMATION: Quality Control Technologist: Christine Condon Release Date: 2021/08/23
Performance	
Macroscopic Features: Large, circular to irregular, flat, erose edge, gray, dull, beta hemolytic.	Medium: SBAP
Microscopic Features: Straight, gram positive rod, with an ellipsoidal or spherical, terminal endospore	Method: Gram Stain (1)
ID System: MALDI-TOF (1) See attached ID System results document.	
Other Features/ Challenges: Results (1) Catalase (3% Hydrogen Peroxide): positive Parasporal crystals (Phase Contrast Microscopy): not present Rhizoid colonies: not present	
 Amanda Kuperus Director of Quality Control AUTHORIZED SIGNATURE	
<p><small>**Disclaimer: The last digit(s) of the lot number appearing on the product label and packing slip are merely a packaging event number. The lot number displayed on this certificate is the actual base lot number.</small></p> <p>Refer to the enclosed product insert for instructions, intended use and hazard/safety information.</p> <p>Individual products are traceable to a recognized culture collection.</p> <p>(1) These tests are accredited to ISO/IEC 17025.</p>	
<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>TESTING CERT #2655.01</p> </div> </div>	
<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>(*) The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Microbiologics, Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures.</p> </div> </div>	
<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>REFERENCE MATERIAL PRODUCER CERT #2655.02</p> </div> </div>	
<p style="font-size: small;">© 2012 Microbiologics, Inc. All Rights Reserved. 200 Cooper Avenue North Saint Cloud, MN 56303</p>	
Page 1 of 1	DOC.286

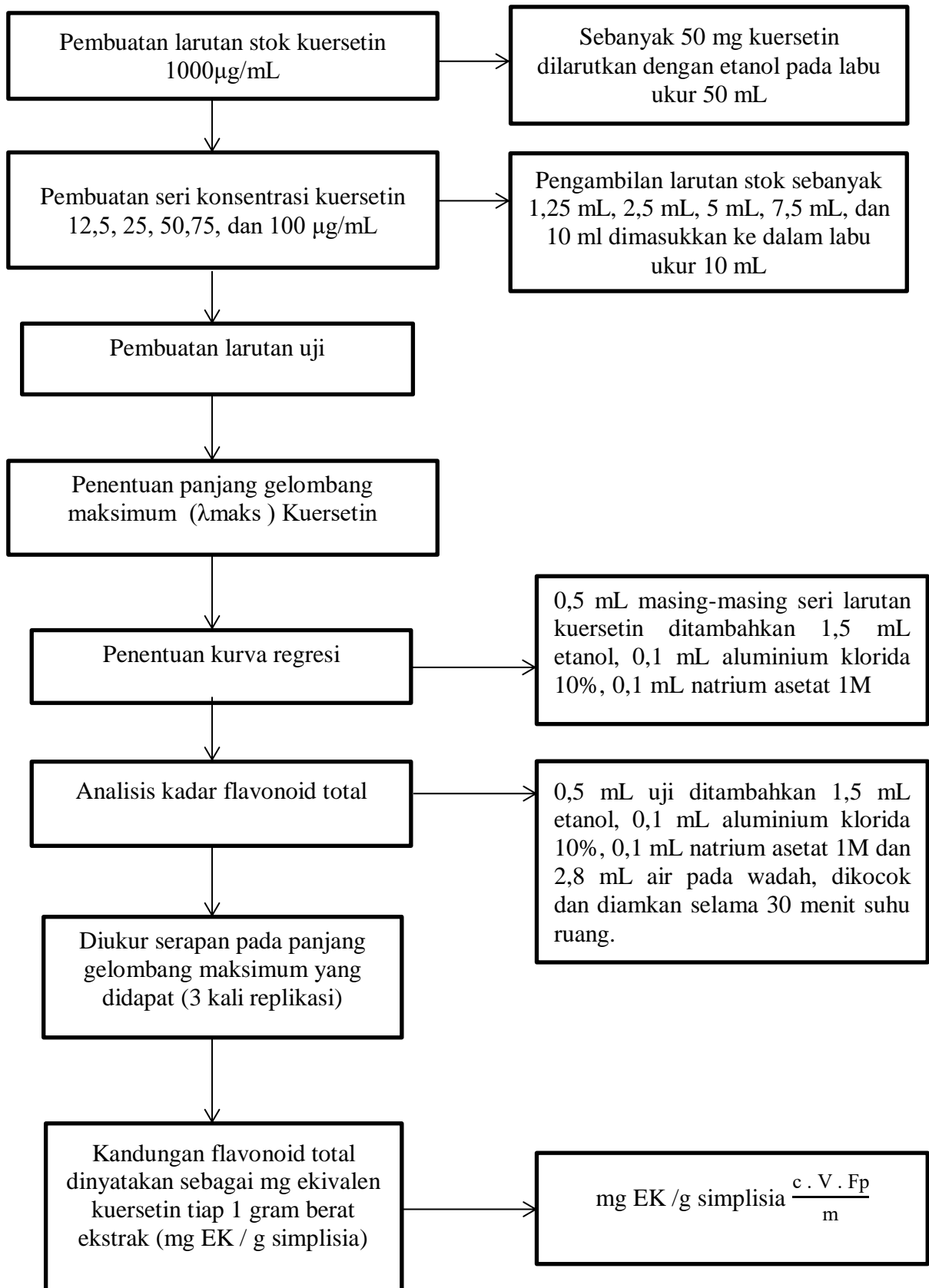
Lampiran 4. Skema Alur penelitian

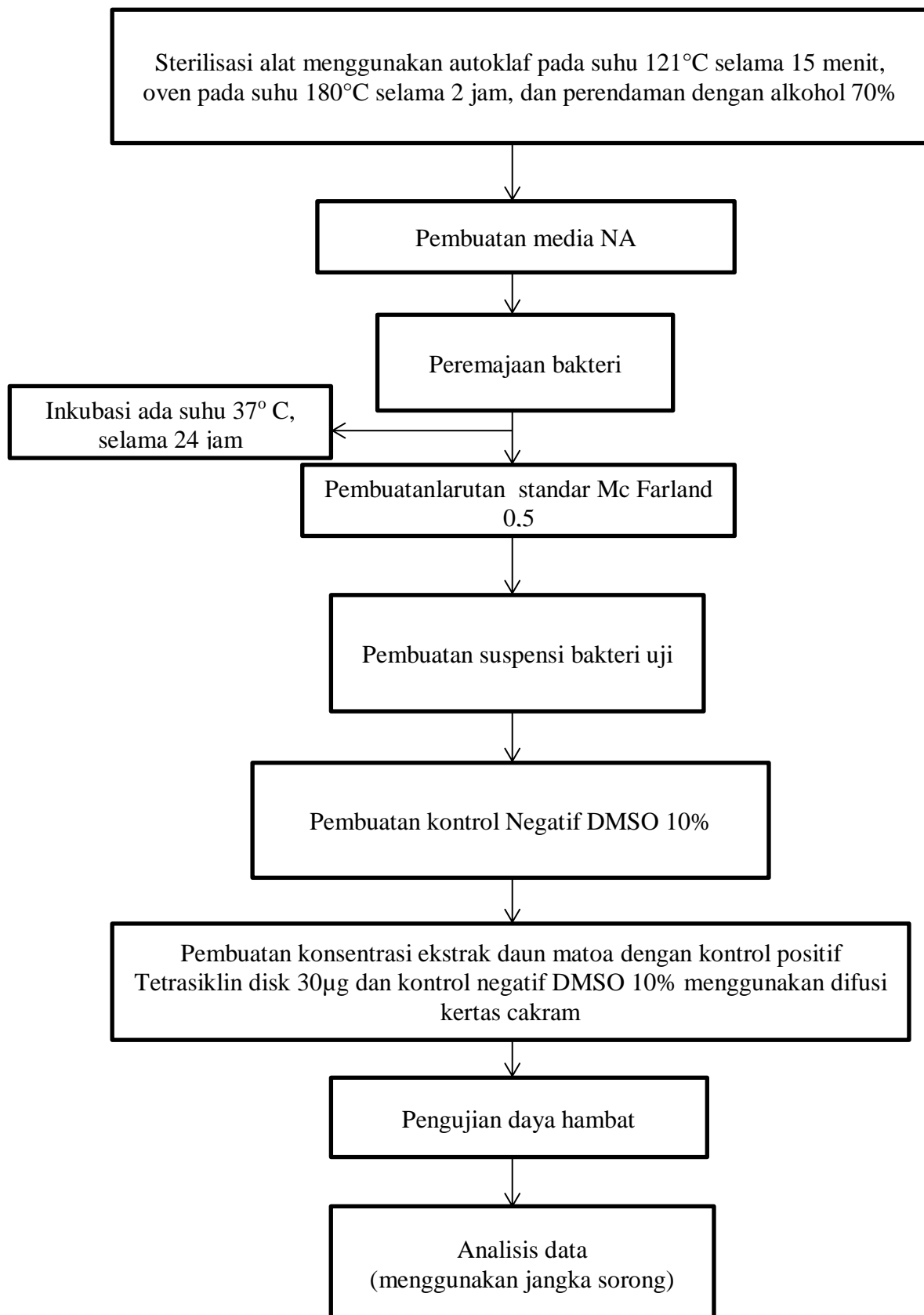


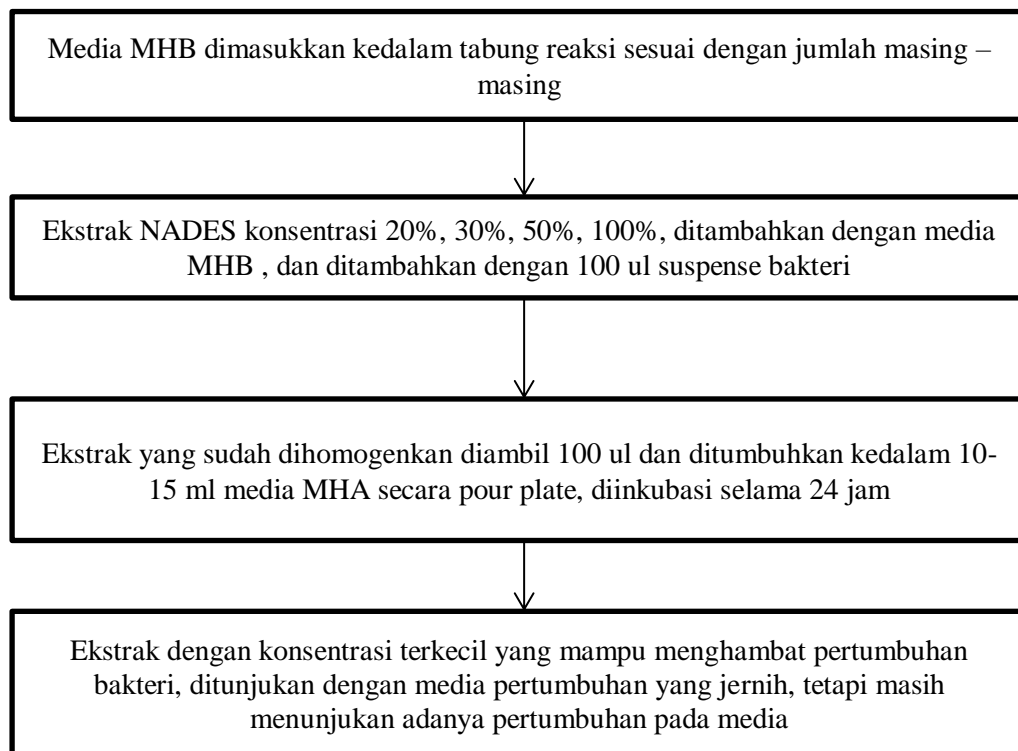
Lampiran 5. Skema Kerja Analisis Kadar Fenol Total



Lampiran 6. Skema Kerja Analisis Kadar Flavonoid Total



Lampiran 7. Skema Kerja Aktivitas Antibakteri Ekstrak Daun Matoa

Lampiran 8. Skema Kerja Metode Dilusi Padat Penentuan KHM

Lampiran 9. Perhitungan Pembuatan Larutan Analisis Kadar Fenol Total

$$1) \text{ Folin-Ciocalteu } 7,5\% \left(\frac{V}{V}\right) = \frac{7,5 \text{ mL}}{100 \text{ mL}}$$

$$2) \text{ NaOH } 1\% \left(\frac{b}{V}\right) = \frac{1 \text{ g}}{100 \text{ mL}}$$

$$3) \text{ Asam Galat } 1.000 \text{ } \mu\text{g/mL} = \frac{100 \text{ mL} \times 50 \text{ mg}}{0,05 \text{ L}} = \frac{50.000 \text{ } \mu\text{g}}{50 \text{ mL}}$$

Asam Galat 15 $\mu\text{g/mL}$ $V_1 \times C_1 =$

$$C_1 = V_2 \times C_2$$

$$V_1 \times 1.000 \text{ } \mu\text{g/mL} = 100 \text{ mL} \times 15 \text{ } \mu\text{g/mL}$$

$$V_1 = \frac{100 \text{ mL} \times 15 \text{ } \mu\text{g/mL}}{1.000 \text{ } \mu\text{g/mL}}$$

$$V_1 = 1,5 \text{ mL}$$

Asam Galat 50 $\mu\text{g/mL}$

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 1.000 \text{ } \mu\text{g/mL} = 100 \text{ mL} \times 50 \text{ } \mu\text{g/mL}$$

$$V_1 = \frac{100 \text{ mL} \times 50 \text{ } \mu\text{g/mL}}{1.000 \text{ } \mu\text{g/mL}}$$

$$V_1 = 5 \text{ mL}$$

Asam Galat 100 $\mu\text{g/mL}$ $V_1 \times C_1 =$

$$C_1 = V_2 \times C_2$$

$$V_1 \times 1.000 \text{ } \mu\text{g/mL} = 100 \text{ mL} \times 100 \text{ } \mu\text{g/mL}$$

$$V_1 = \frac{100 \text{ mL} \times 100 \text{ } \mu\text{g/mL}}{1.000 \text{ } \mu\text{g/mL}}$$

$$V_1 = 1 \text{ mL}$$

Asam Galat 30

$$\mu\text{g/mL } V_1 \times C_1 =$$

$$V_2 \times C_2$$

$$V_1 \times 1.000 \text{ } \mu\text{g/mL} = 10 \text{ mL} \times 30 \text{ } \mu\text{g/mL}$$

$$V_1 = \frac{10 \text{ mL} \times 30 \text{ } \mu\text{g/mL}}{1.000 \text{ } \mu\text{g/mL}}$$

$$V_1 = 3 \text{ mL}$$

Asam Galat 50 $\mu\text{g/mL}$

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 1.000 \text{ } \mu\text{g/mL} = 10 \text{ mL} \times 50 \text{ } \mu\text{g/mL}$$

$$V_1 = \frac{10 \text{ mL} \times 50 \text{ } \mu\text{g/mL}}{1.000 \text{ } \mu\text{g/mL}}$$

$$V_1 = 5 \text{ mL}$$

$$4) \text{ Pembuatan Larutan Uji } 8.000 \text{ } \mu\text{g/mL} = \frac{200 \text{ mg}}{0,025 \text{ L}} = \frac{200.000 \text{ } \mu\text{g}}{25 \text{ mL}}$$

Larutan Uji 4.000 $\mu\text{g/mL}$

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 8.000 \text{ } \mu\text{g/mL} = 10 \text{ mL} \times 4.000 \text{ } \mu\text{g/mL}$$

$$V_1 = \frac{10 \text{ mL} \times 4.000 \text{ } \mu\text{g/mL}}{8.000 \text{ } \mu\text{g/mL}}$$

$$V_1 = 5 \text{ mL}$$

Larutan Uji 1.000 $\mu\text{g/mL}$

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 8.000 \text{ } \mu\text{g/mL} = 10 \text{ mL} \times 1.000 \text{ } \mu\text{g/mL}$$

$$V_1 = \frac{10 \text{ mL} \times 1.000 \text{ } \mu\text{g/mL}}{8.000 \text{ } \mu\text{g/mL}}$$

$$V_1 = 1,25 \text{ mL}$$

Lampiran 10. Perhitungan Pembuatan Larutan Analisis Kadar Flavonoid

Total

$$1) \text{AlCl}_3 \text{ 10\% (b/v)} = \frac{10 \text{ g}}{100 \text{ mL}} = \frac{1 \text{ g}}{10 \text{ mL}}$$

$$2) \text{CH}_3\text{COONa 1 M} = \frac{\text{gr}}{\text{Mr}} \times \frac{1.000}{V \text{ (mL)}}$$

$$1 \text{ M} = \frac{\text{gr}}{136,08 \text{ g/mol}} \times \frac{1.000}{10}$$

$$1 \text{ M} = \frac{\text{gr}}{136,08 \text{ g/mol}} \times \frac{1.000}{10 \text{ mL}}$$

$$1.000 \text{ gr} = 1360,8$$

$$3) \text{Kuersetin 1.000 } \mu\text{g/mL} = \frac{50 \text{ mg}}{0,05 \text{ L}} = \frac{50.000 \mu\text{g}}{50 \text{ mL}}$$

Kuersetin 12,5 $\mu\text{g/mL}$ V_1

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 1.000 \mu\text{g/mL} = 100 \text{ mL} \times 12,5 \mu\text{g/mL}$$

$$V_1 = \frac{100 \text{ mL} \times 12,5 \mu\text{g/mL}}{1.000 \mu\text{g/mL}}$$

$$V_1 = 1,25 \text{ mL}$$

Kuersetin 50 $\mu\text{g/mL}$

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 1.000 \mu\text{g/mL} = 100 \text{ mL} \times 50 \mu\text{g/mL}$$

$$V_1 = \frac{100 \text{ mL} \times 50 \mu\text{g/mL}}{1.000 \mu\text{g/mL}}$$

$$V_1 = 5 \text{ mL}$$

Kuersetin 100 $\mu\text{g/mL}$ V_1

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 1.000 \mu\text{g/mL} = 100 \text{ mL} \times 100 \mu\text{g/mL}$$

$$V_1 = \frac{10 \text{ mL} \times 100 \mu\text{g/mL}}{1.000 \mu\text{g/mL}}$$

$$V_1 = 1 \text{ mL}$$

Kuersetin 25 $\mu\text{g/mL}$

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 1.000 \mu\text{g/mL} = 100 \text{ mL} \times 25 \mu\text{g/mL}$$

$$V_1 = \frac{100 \text{ mL} \times 25 \mu\text{g/mL}}{1.000 \mu\text{g/mL}}$$

$$V_1 = 25 \text{ mL}$$

Kuersetin 75 $\mu\text{g/mL}$

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 1.000 \mu\text{g/mL} = 100 \text{ mL} \times 75 \mu\text{g/mL}$$

$$V_1 = \frac{100 \text{ mL} \times 75 \mu\text{g/mL}}{1.000 \mu\text{g/mL}}$$

$$V_1 = 75 \text{ mL}$$

$$4) \text{Pembuatan Larutan Uji 8.000 } \mu\text{g/mL} = \frac{200 \text{ mg}}{0,025 \text{ L}} = \frac{200.000 \mu\text{g}}{25 \text{ mL}}$$

Larutan Uji 4.000 $\mu\text{g/mL}$

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 8.000 \mu\text{g/mL} = 10 \text{ mL} \times 4.000 \mu\text{g/mL}$$

$$V_1 = \frac{10 \text{ mL} \times 4.000 \mu\text{g/mL}}{8.000 \mu\text{g/mL}}$$

$$V_1 = 5 \text{ mL}$$

Larutan Uji 2.000 $\mu\text{g/mL}$

$$V_1 \times C_1 = V_2 \times C_2$$

$$V_1 \times 8.000 \mu\text{g/mL} = 10 \text{ mL} \times 2.000 \mu\text{g/mL}$$

$$V_1 = \frac{10 \text{ mL} \times 2.000 \mu\text{g/mL}}{8.000 \mu\text{g/mL}}$$

$$V_1 = 2,5 \text{ mL}$$

Lampiran 11. Perhitungan Preparasi NADES Kolin klorida dan asam sitrat

<p>1. Massa ChCl : Cac (1:1)</p> <p>Mr ChCl = 139,62 g/mol ;</p> <p>Mr Cac = 192 g/mol</p> <p>Total massa yang ditimbang = 30 g</p> $n = \frac{\text{massa total}}{(\text{Mr ChCl} \times 1) + (\text{Mr Cac} \times 1)}$ $n = \frac{30 \text{ g}}{(139,62 \text{ g/mol} \times 1) + (192 \text{ g/mol} \times 1)}$ $n = \frac{30 \text{ g}}{0,0904}$ <p>n = 0,0904</p> <p>Massa ChCl = (Mr ChCl) x n</p> <p>= 139,62 g/mol x 0,0904 g/mol</p> <p>= 12,621 g</p> <p>Massa Cac = (Mr Cac) x n</p> <p>= 192 g/mol x 0,0904 g/mol</p> <p>= 17,356 g</p>	<p>2. Massa ChCl : Cac (1:2)</p> <p>Mr ChCl = 139,62 g/mol ;</p> <p>Mr Cac = 192 g/mol</p> <p>Total massa yang ditimbang = 30 g</p> $n = \frac{\text{massa total}}{(\text{Mr ChCl} \times 1) + (\text{Mr Cac} \times 2)}$ $n = \frac{30 \text{ g}}{(139,62 \text{ g/mol} \times 1) + (192 \text{ g/mol} \times 2)}$ $n = \frac{30 \text{ g}}{523,62}$ <p>n = 0,0572</p> <p>Massa ChCl = (Mr ChCl) x n</p> <p>= 139,62 g/mol x 0,0572 g/mol</p> <p>= 7,986 g</p> <p>Massa Cac = (Mr Cac) x n</p> <p>= 192 g/mol x 0,0572 (x2) g/mol</p> <p>= 21,964 g</p>
<p>3. Massa ChCl : Cac (2:1)</p> <p>Mr ChCl = 139,62 g/mol ;</p> <p>Mr Cac = 192 g/mol</p> <p>Total massa yang ditimbang = 30 g</p> $n = \frac{\text{massa total}}{(\text{Mr ChCl} \times 2) + (\text{Mr Cac} \times 1)}$ $n = \frac{30 \text{ g}}{(139,62 \text{ g/mol} \times 2) + (192 \text{ g/mol} \times 1)}$ $n = \frac{30 \text{ g}}{471,24}$ <p>n = 0,0636</p> <p>Massa ChCl = (Mr ChCl) x n</p> <p>= 139,62 (x2) g/mol x 0,0636 g/mol</p> <p>= 17,759 g</p> <p>Massa Cac = (Mr Cac) x n</p> <p>= 192 g/mol x 0,0636 g/mol</p> <p>= 12,211 g</p>	<p>4. Massa ChCl : Cac (1:3)</p> <p>Mr ChCl = 139,62 g/mol ;</p> <p>Mr Cac = 192 g/mol</p> <p>Total massa yang ditimbang = 30 g</p> $n = \frac{\text{massa total}}{(\text{Mr ChCl} \times 1) + (\text{Mr Cac} \times 3)}$ $n = \frac{30 \text{ g}}{(139,62 \text{ g/mol} \times 1) + (192 \text{ g/mol} \times 3)}$ $n = \frac{30 \text{ g}}{715,62}$ <p>n = 0,0419</p> <p>Massa ChCl = (Mr ChCl) x n</p> <p>= 139,62 g/mol x 0,0419 g/mol</p> <p>= 5,850 g</p> <p>Massa Cac = (Mr Cac) x n</p> <p>= 192 g/mol x 0,0419 (x3)g/mol</p> <p>= 24,134 g</p>

5. Massa ChCl : Cac (3:1)

Mr ChCl = 139,62 g/mol ;

Mr Cac = 192 g/mol

Total massa yang ditimbang = 30 g

$$n = \frac{\text{massa total}}{(\text{Mr ChCl} \times 3) + (\text{Mr Cac} \times 1)}$$

$$n = \frac{30 \text{ g}}{(139,62 \text{ g/mol} \times 3) + (192 \text{ g/mol} \times 1)} \quad n = \frac{30 \text{ g}}{610,86}$$

$$n = 0,0491$$

Massa ChCl = (Mr ChCl) x n

$$= 139,62 (\times 3) \text{ g/mol} \times 0,0491 \text{ g/mol}$$


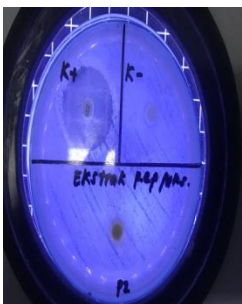

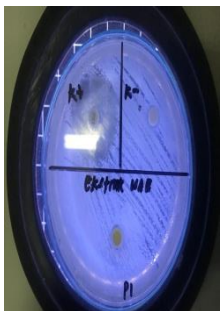
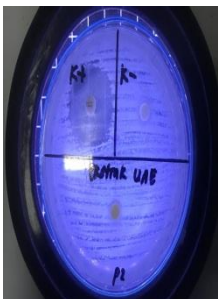




$$= 20,566 \text{ g}$$

Massa Cac = (Mr Cac) x n


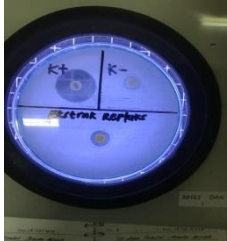

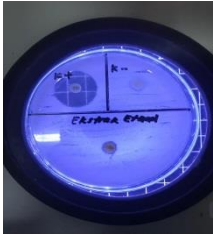
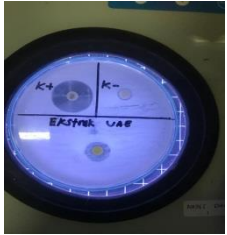




$$= 192 \text{ g/mol} \times 0,0491 \text{ g/mol}$$

$$= 9,427 \text{ g}$$

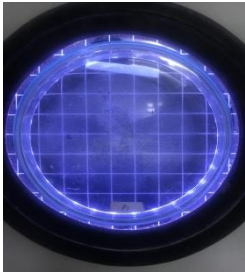
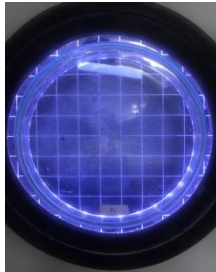
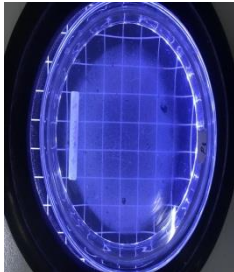
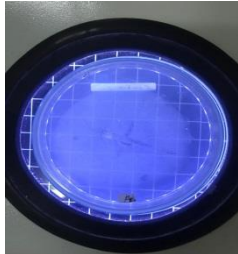
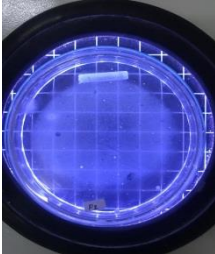
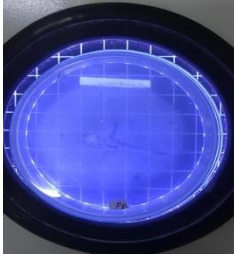
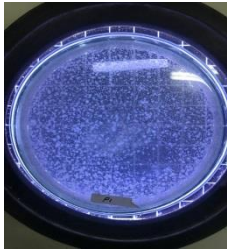
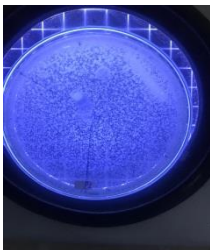
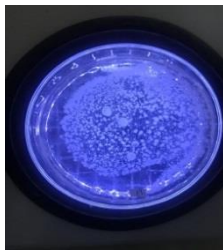
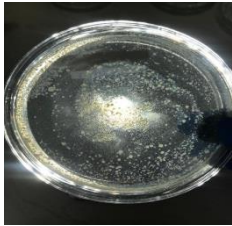
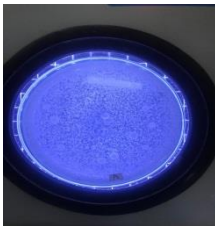

Lampiran 12. Pengujian Daya Hambat *Bacillus cereus*

No	Pengulangan 1	No	Pengulangan 2	No	Pengulangan 3	Hasil
1.		2.		3.		Refluks
1.		2.		3.		UAE
1.		2.		3.		Nades


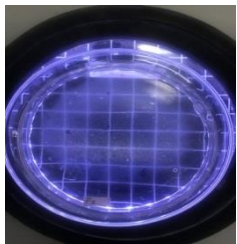
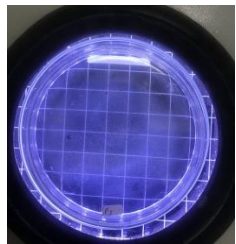
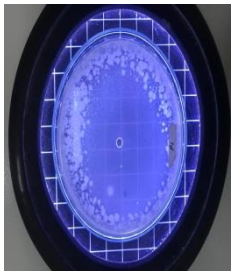
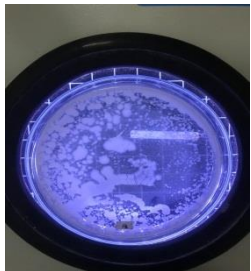
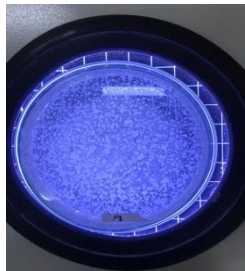

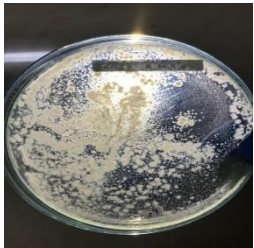

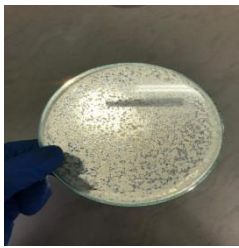
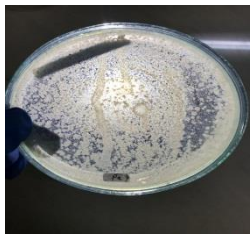

Lampiran 13. Pengujian Daya Hambat *Shigella dysenteriae*

No	Pengulangan 1	No	Pengulangan 2	No	Pengulangan 3	Hasil
1.		2.		3.		Refluks
1.		2.		3.		UAE
1.		2.		3.		NADES



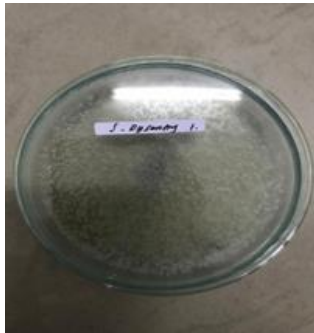

Lampiran 14. Pengujian KHM Bakteri *Bacillus cereus*

No	Pengulangan 1	No	Pengulangan 2	No	Pengulangan 3	Konsentrasi
1.		2.		3.		100%
1.		2.		3.		40%
1.		2.		3.		30%
1.		2.		3.		20%

Lampiran 15. Pengujian KHM *Shigella dysenteriae*

No	Pengulangan 1	No	Pengulangan 2	No	Pengulangan 3	Konsentrasi
1.		2.		3.		100%
1.		2.		3.		50%
1.		2.		3.		30%
1.		2.		3.		20%

Lampiran 16. Media Bakteri

 <p><i>Shigella dysentri</i> pada media SSA</p>	 <p><i>Shigella dysentri</i> pada media TSIA</p>	 <p><i>Shigella dysentri</i> pada media NA</p>
 <p>Bakteri <i>Bacillus cereus</i> pada media NA</p>	 <p>Penyetaraan <i>Mc Farland</i> dengan suspense <i>Shigella dysentri</i></p>	 <p>Penyetaraan <i>Mc Farland</i> dengan suspense <i>Bacillus cereus</i></p>

Lampiran 17. Hasil Uji Aktivitas Antibakteri

Tabel 4.10 Hasil pengukuran Daya Hambat Antibakteri

Shigella dysentri Ekstrak Refluks

Perlakuan	Daya hambat bakteri (mm)			Rata – rata
	Perlakuan 1	Perlakuan 2	Perlakuan 3	
Kontrol + (Disk Tetrasiklin)	24,2 mm	25,3 mm	22,4 mm	23,96 mm
Kontrol – (DMSO)	0 mm	0 mm	0 mm	0 mm
Konsentrasi 30.000 ppm	6,3 mm	4,65 mm	6,4 mm	5,78 mm

Tabel 4.11 Hasil pengukuran Daya Hambat Antibakteri

Shigella dysentri Ekstrak Etanol UAE

Perlakuan	Daya hambat bakteri (mm)			Rata – rata
	Perlakuan 1	Perlakuan 2	Perlakuan 3	
Kontrol + (Disk Tetrasiklin)	23,9 mm	22,9 mm	22,9 mm	23,23 mm
Kontrol – (DMSO)	0 mm	0 mm	0 mm	0 mm
Konsentrasi 100%	2,4 mm	7,7 mm	4,4 mm	4,83 mm

Tabel 4.12 Hasil pengukuran Daya Hambat Antibakteri

Shigella dysentri Ekstrak NADES

Perlakuan	Daya hambat bakteri (mm)			Rata – rata
	Perlakuan 1	Perlakuan 2	Perlakuan 3	
Kontrol + (Disk Tetrasiklin)	21,8 mm	22,7 mm	24,3 mm	22,93 mm
Kontrol – (DMSO)	0 mm	0 mm	0 mm	0 mm
Konsentrasi 100%	3,5 mm	3,45 mm	4,05 mm	3,66 mm

Lampiran 18. Hasil Uji Aktivitas Antibakteri

Tabel 4.13 Hasil pengukuran Daya Hambat Antibakteri

Bacillus cereus Ekstrak Refluks

Perlakuan	Daya hambat bakteri (mm)			Rata – rata
	Perlakuan 1	Perlakuan 2	Perlakuan 3	
Kontrol + (Disk Tetrasiklin)	24,2 mm	22,4 mm	26,3 mm	24,3 mm
Kontrol – (DMSO)	0 mm	0 mm	0 mm	0 mm
Konsentrasi 100%	0 mm	0 mm	0 mm	0 mm

Tabel 4.14 Hasil pengukuran Daya Hambat Antibakteri

Bacillus cereus Ekstrak Etanol UAE

Perlakuan	Daya hambat bakteri (mm)			Rata – rata
	Perlakuan 1	Perlakuan 2	Perlakuan 3	
Kontrol + (Disk Tetrasiklin)	22,9 mm	22,9 mm	23,9 mm	23,23 mm
Kontrol – (DMSO)	0 mm	0 mm	0 mm	0 mm
Konsentrasi 100%	0 mm	0 mm	0,9 mm	0,3 mm

Tabel 4.15 1 Hasil pengukuran Daya Hambat Antibakteri

Bacillus cereus Ekstrak NADES

Perlakuan	Daya hambat bakteri (mm)			Rata – rata
	Perlakuan 1	Perlakuan 2	Perlakuan 3	
Kontrol + (Disk Tetrasiklin)	25,7 mm	26,7 mm	23,0 mm	25,13 mm
Kontrol – (DMSO)	0 mm	0 mm	0 mm	0 mm
Konsentrasi 100%	2,97 mm	3,07 mm	8,67 mm	4,90 mm

Lampiran 19. Perhitungan Media

Perhitungan Media SSA	Perhitungan Media TSIA
<p>Diketahui:</p> <p>Cawan petri : 15 ml</p> <p>Ketentuan SSA : 63/1000 ml</p> <p>Jumlah yang diperlukan:</p> <p>2 cawan petri untuk media datar</p> <p>Penyelesaian:</p> <p>15 ml x 2 cawan petri = 30 ml</p> <p>Total aquadest 30 ml dilebihkan menjadi 32 ml</p> <p>Maka, banyaknya media yang dibutuhkan adalah</p> <p>63g : 1000 x 32 ml : 2,016 g</p> <p>Jadi, 2,016 gram media SSA dilarutkan dengan 32 ml aquadest</p>	<p>Diketahui:</p> <p>Tabung : 5 ml</p> <p>Ketentuan TSIA : 64/1000 ml</p> <p>Jumlah yang diperlukan:</p> <p>2 tabung reaksi untuk media miring</p> <p>Penyelesaian:</p> <p>5 ml x 2 tabung reaksi = 10 ml</p> <p>Total aquadest 10 ml dilebihkan menjadi 12 ml</p> <p>Maka, banyaknya media yang dibutuhkan adalah</p> <p>64,52 g : 1000 x 12 ml : 0,774 g</p> <p>Jadi, 0,774 gram media TSIA dilarutkan dengan 12 ml aquadest</p>

Lampiran 20. Perhitungan Media

Perhitungan Media NA	Perhitungan Media MHA
<p>Diketahui:</p> <p>Cawan petri : 15 ml</p> <p>Ketentuan NA : 28/1000 ml</p> <p>Jumlah yang diperlukan:</p> <p>2 cawan petri untuk media datar</p> <p>Penyelesaian:</p> <p>15 ml x 2 cawan petri = 30 ml</p> <p>Total aquadest 30 ml dilebihkan menjadi 32 ml</p> <p>Maka, banyaknya media yang dibutuhkan adalah</p> <p>28g : 1000 x 32 ml : 0,896 g</p> <p>Jadi, 0,896 gram media NA dilarutkan dengan 32 ml aquadest</p>	<p>Diketahui:</p> <p>Cawan petri : 15 ml</p> <p>Ketentuan MHA : 38/1000 ml</p> <p>Jumlah yang diperlukan:</p> <p>3 cawan petri untuk media datar</p> <p>Penyelesaian:</p> <p>15 ml x 3 tabung reaksi = 45 ml</p> <p>Total aquadest 45 ml dilebihkan menjadi 50 ml</p> <p>Maka, banyaknya media yang dibutuhkan adalah</p> <p>38g : 1000 x 50 ml : 1,9 g</p> <p>Jadi, 1,9 gram media MHA dilarutkan dengan 50 ml aquadest</p>

Lampiran 21. Perhitungan Media**Perhitungan Media MHB**

Diketahui:

Tabung Reaksi : 10 ml

Ketentuan MHB : 21g/1000 ml

Jumlah yang diperlukan:

1 tabung reaksi untuk media cair

Penyelesaian:

10 ml x 1 tabung reaksi = 10 ml

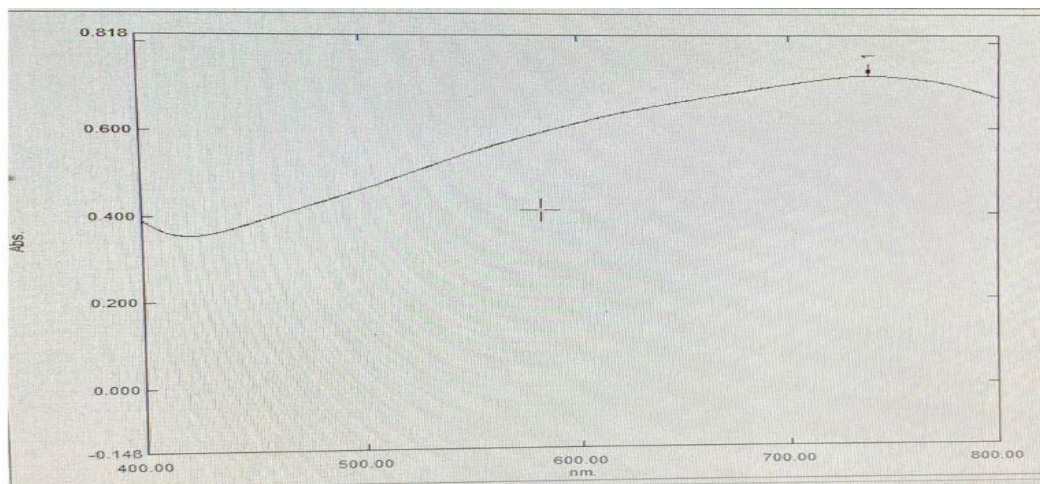
Total aquadest 30 ml dilebihkan menjadi 10 ml

Maka, banyaknya media yang dibutuhkan adalah

21g : 1000 x 10 ml
: 210 mg

Jadi, 210 mg media MHB dilarutkan dengan 10 ml aquadest

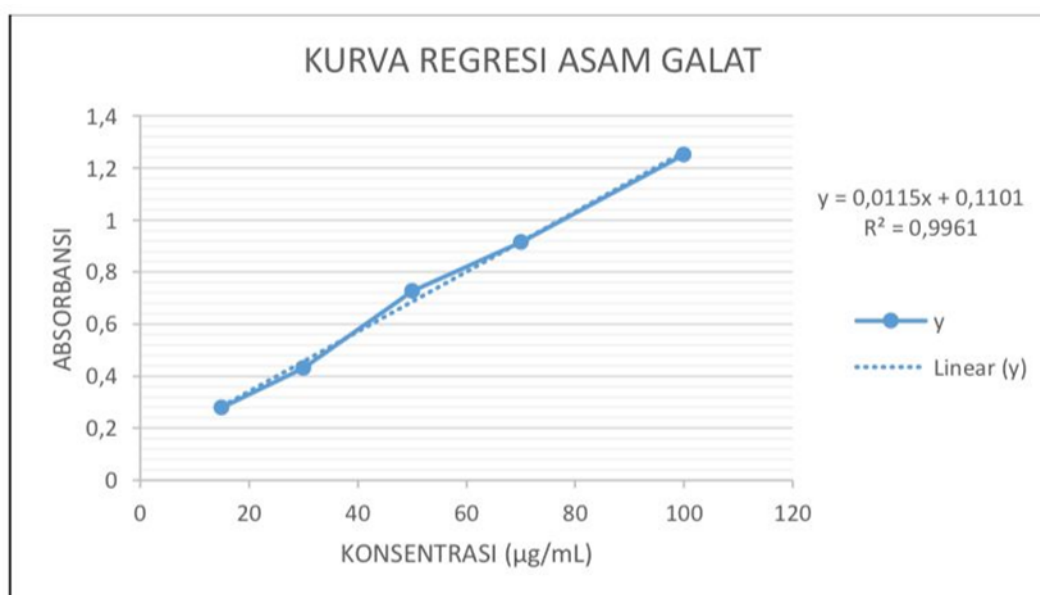
Lampiran 22. Spektrum Panjang Gelombang Maksimum Asam Galat



738 nm

Lampiran 23. Kurva Regresi Asam Galat

Larutan Standar	Konsentrasi	Absorbansi
Asam Galat	15 PPM	0,279
	30 PPM	0,432
	50 PPM	0,726
	70 PPM	0,914
	100 PPM	1,25



Lampiran 24. Data Kadar Fenol Total

Ekstrak		Absorbansi	x ($\mu\text{g/mL}$)	X (mg/mL)	mg EAG/g simplisia	Rata- rata	SD	% RSD		
KONVENSIONAL UAE	Replikasi 1	0.871	66.165	0.066165	66.165	66.252	0.0870	0.1313		
	Replikasi 2	0.873	66.339	0.066339	66.339					
	Replikasi 3	0.872	66.252	0.066252	66.252					
KONVENSIONAL REFLUKS	200 PPM	Replikasi 1	0.913	69.817	0.069817	58,367	58,561	0.8234	0.4702	
	Replikasi 2	0.914	69.904	0.069904	58,440					
	Replikasi 3	0.92	70.426	0.070426	58,876					
NADES UAE	1 : 1	Replikasi 1	0,910	69.557	0.069557	69.557	69.933	0.3921	0.5607	
		Replikasi 2	0,919	70.339	0.070339					70.339
		Replikasi 3	0,914	69.904	0.069904					69.904
	1 : 2	Replikasi 1	0,584	41.209	0.041209	41.209	41.354	0.3292	0.7961	
		Replikasi 2	0,583	41.122	0.041122					41.122
		Replikasi 3	0,590	41.730	0.041730					41.730
	2 : 1	Replikasi 1	0,789	59.035	0.059035	59.035	59.238	0.2795	0.4719	
		Replikasi 2	0,795	59.557	0.059557					59.557
		Replikasi 3	0,790	59.122	0.059122					59.122
	1 : 3	Replikasi 1	0,941	72.252	0.072252	72.252	72.774	0.5217	0.7169	
		Replikasi 2	0,947	72.774	0.072774					72.774
		Replikasi 3	0,953	73.296	0.073296					73.296
	3 : 1	Replikasi 1	0,689	50.339	0.050339	50.339	51.180	0.8265	1.6148	
		Replikasi 2	0,699	51.209	0.051209					51.209
		Replikasi 3	0,708	51.991	0.051991					51.991

Lampiran 25. Perhitungan Kadar Fenol Total

$$1. \quad x \text{ (ug/mL)}$$

$$y = a + bx$$

$$y = 0,1101 + 0,0115x$$

$$x = \frac{y-0,1101}{0,0115}$$

Konvensional UAE (1) - Konvensional UAE (2) - Konvensional UAE (3)

$$x = \frac{0,871 - 0,1101}{0,0115}$$

$$x = 66,165$$

$$x = \frac{0,873 - 0,1101}{0,0115}$$

$$x = 66,339$$

$$x = \frac{0,872 - 0,1101}{0,0115}$$

$$x = 66,252$$

Konvensional Refluks 1 - Konvensional Refluks 2 - Konvensional Refluks 3

$$x = \frac{0,913 - 0,1101}{0,0115}$$

$$x = 69,817$$

$$x = \frac{0,914 - 0,1101}{0,0115}$$

$$x = 69,904$$

$$x = \frac{0,920 - 0,1101}{0,0115}$$

$$x = 70,426$$

NADES UAE R1 (1:1) - NADES UAE R2 (1:1) - NADES UAE R3 (1:1)

$$x = \frac{0,910 - 0,1101}{0,0115}$$

$$x = 69,557$$

$$x = \frac{0,919 - 0,1101}{0,0115}$$

$$x = 70,339$$

$$x = \frac{0,914 - 0,1101}{0,0115}$$

$$x = 69,904$$

NADES UAE R1 (1:2) - NADES UAE R2 (1:2) - NADES UAE R3 (1:2)

$$x = \frac{0,584 - 0,1101}{0,0115}$$

$$x = 41,209$$

$$x = \frac{0,583 - 0,1101}{0,0115}$$

$$x = 41,122$$

$$x = \frac{0,590 - 0,1101}{0,0115}$$

$$x = 41,730$$

NADES UAE R1 (2:1) - NADES UAE R2 (2:1) - NADES UAE R3 (2:1)

$$x = \frac{0,789 - 0,1101}{0,0115}$$

$$x = 41,209$$

$$x = \frac{0,795 - 0,1101}{0,0115}$$

$$x = 41,122$$

$$x = \frac{0,790 - 0,1101}{0,0115}$$

$$x = 41,730$$

$$x = 59,035$$

$$x = 59,557$$

$$x = 59,122$$

NADES UAE R1 (1:3) - NADES UAE R2 (1:3) - NADES UAE R3 (1:3)

$$x = \frac{0,941-0,1101}{0,0115}$$

$$x = \frac{0,947-0,1101}{0,0115}$$

$$x = \frac{0,953-0,1101}{0,0115}$$

$$x = 72,252$$

$$x = 72,774$$

$$x = 73,296$$

NADES UAE R1 (3:1) - NADES UAE R2 (3:1) - NADES UAE R3 (3:1)

$$x = \frac{0,689-0,1101}{0,0115}$$

$$x = \frac{0,699-0,1101}{0,0115}$$

$$x = \frac{0,708-0,1101}{0,0115}$$

$$x = 50,339$$

$$x = 51,209$$

$$x = 51,991$$

$$X(\text{mg/mL}) = \frac{\mu\text{g/mL}}{1000}$$

- mg EAG/g simplisia

$$\text{Konvensional UAE} = \frac{\text{c.V.Fp}}{\text{m}} = \frac{0,0661 \cdot 40.50}{2} = 66,252 \text{ mg EAG/g simplisia}$$

$$\text{Konvensional Refluks 200 ppm} = \frac{\text{c.V.Fp}}{\text{m}} = \frac{0,0698 \cdot 40.50}{2} = 175,123 \text{ mg EAG/g simplisia}$$

$$= 175,123 \times 1,672 / 5 = 58,561 \text{ mg EAG/g simplisia}$$

$$\text{NADES 1:1} = \frac{\text{c.V.Fp}}{\text{m}} = \frac{0,0695 \cdot 40.50}{2} = 69,933 \text{ mg EAG/g simplisia}$$

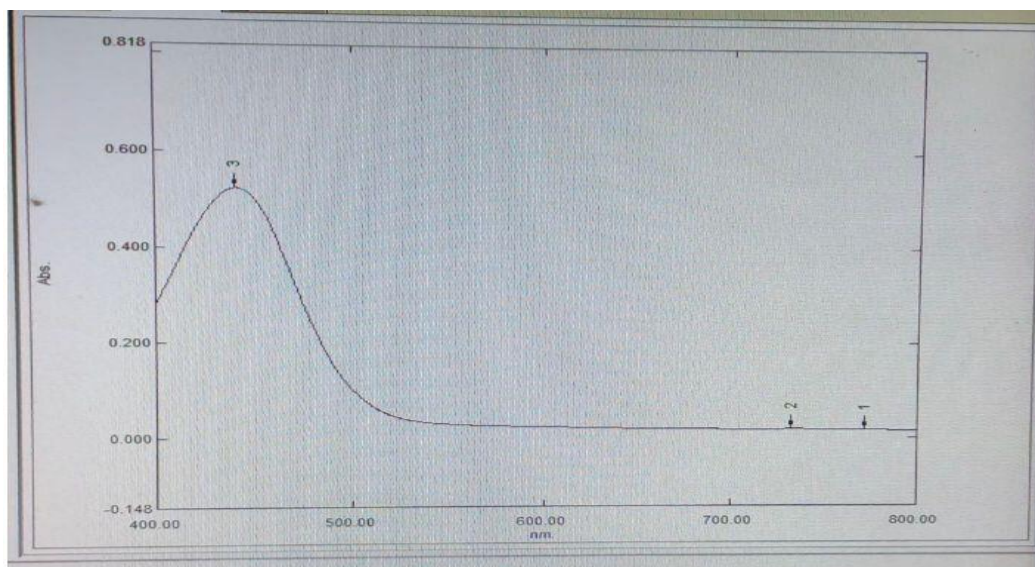
$$\text{NADES 1:2} = \frac{\text{c.V.Fp}}{\text{m}} = \frac{0,0412 \cdot 40.50}{2} = 41,353 \text{ mg EAG/g simplisia}$$

$$\text{NADES 1:3} = \frac{\text{c.V.Fp}}{\text{m}} = \frac{0,0722 \cdot 40.50}{2} = 72,773 \text{ mg EAG/g simplisia}$$

$$\text{NADES 2:1} = \frac{\text{c.V.Fp}}{\text{m}} = \frac{0,0590 \cdot 40.50}{2} = 59,237 \text{ mg EAG/g simplisia}$$

$$\text{NADES 3:1} = \frac{\text{c.V.Fp}}{\text{m}} = \frac{0,0503 \cdot 40.50}{2} = 51,1779 \text{ mg EAG/g simplisia}$$

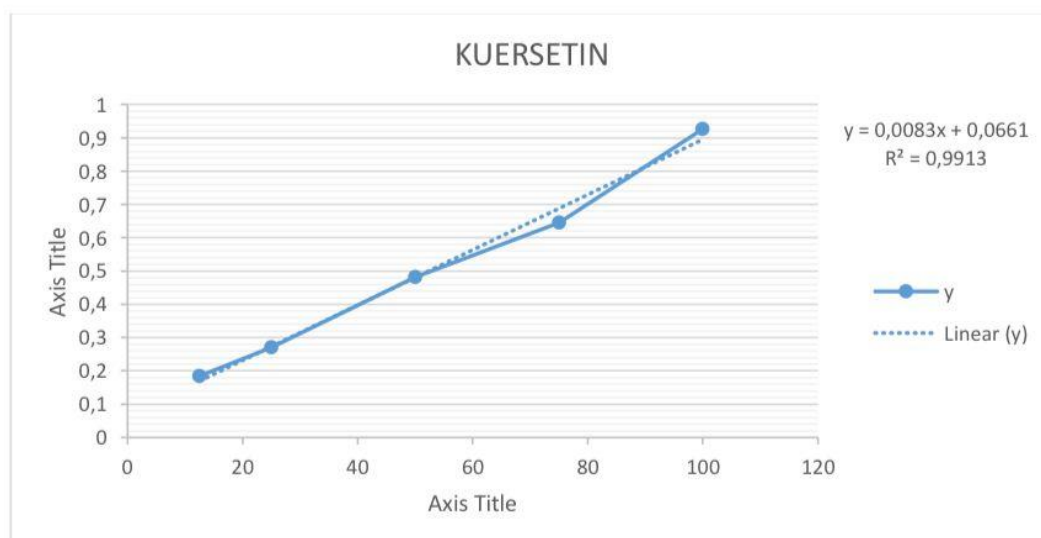
Lampiran 26. Spektrum Panjang Gelombang Maksimum Kuersetin



440,5 nm

Lampiran 27. Kurva Regresi Kuersetin

Larutan Standar	Konsentrasi	Absorbansi
Kuersetin	12,5 PPM	0,185
	25 PPM	0,270
	50 PPM	0,481
	75 PPM	0,645
	100 PPM	0,927



Lampiran 28. Data Kadar Flavonoid Total

Ekstrak		Absorbansi	x ($\mu\text{g/mL}$)	X (mg/mL)	mg EK/g simplisia	Rata- rata	SD	% RSD	
KONVENSIONAL UAE	Replikasi 1	0.285	26.373	0.026373	2.637	2.593	0.0423	1.6317	
	Replikasi 2	0.278	25.530	0.025530	2.553				
	Replikasi 3	0.281	25.892	0.025892	2.589				
KONVENSIONAL REFLUKS	1000 PPM	Replikasi 1	0.167	12.157	0.012157	4,863	1,674	0.3614	2.8874
	Replikasi 2	0.170	12.518	0.012518	5,007				
	Replikasi 3	0.173	12.880	0.012880	5,152				
NADES UAE	1 : 1	Replikasi 1	0.345	33.602	0.033602	3.360	3.312	0.0417	1.2601
		Replikasi 2	0.339	32.880	0.032880	3.288			
		Replikasi 3	0.339	32.880	0.032880	3.288			
	1 : 2	Replikasi 1	0.289	26.855	0.026855	2.686	2.633	0.1010	3.8370
		Replikasi 2	0.290	26.976	0.026976	2.698			
		Replikasi 3	0.275	25.169	0.025169	2.517			
	2 : 1	Replikasi 1	0.263	23.723	0.023723	2.372	2.344	0.0251	1.0699
		Replikasi 2	0.260	23.361	0.023361	2.336			
		Replikasi 3	0.259	23.241	0.023241	2.324			
	1 : 3	Replikasi 1	0.443	45.410	0.045410	4.541	4.441	0.0872	1.9628
		Replikasi 2	0.431	43.964	0.043964	4.396			
		Replikasi 3	0.430	43.843	0.043843	4.384			
	3 : 1	Replikasi 1	0.268	24.325	0.024325	2.433	2.348	0.0790	3.3645
		Replikasi 2	0.260	23.361	0.023361	2.336			
		Replikasi 3	0.255	22.759	0.022759	2.276			

Lampiran 29. Perhitungan Kadar Flavonoid Total

2. (ug/mL)

$$y = a + bx$$

$$y = 0,0661 + 0,0083x$$

$$x = \frac{y-0,0661}{0,0083}$$

Konvensional UAE (1) - Konvensional UAE (2) - Konvensional UAE (3)

$$x = \frac{0,285-0,0661}{0,0083}$$

$$x = 26,373$$

$$x = \frac{0,278-0,0661}{0,0083}$$

$$x = 25,530$$

$$x = \frac{0,281-0,0661}{0,0083}$$

$$x = 25,892$$

Refluks 1000 ppm 1 - Refluks 1000 ppm 2 - Refluks 1000 ppm 3

$$x = \frac{0,167-0,0661}{0,0083}$$

$$x = 12,157$$

$$x = \frac{0,170-0,0661}{0,0083}$$

$$x = 12,518$$

$$x = \frac{0,173-0,0661}{0,0083}$$

$$x = 12,880$$

Refluks 2000 ppm 1 - Refluks 2000 ppm 2 - Refluks 2000 ppm 3

$$x = \frac{0,243-0,0661}{0,0083}$$

$$x = 21,313$$

$$x = \frac{0,246-0,0661}{0,0083}$$

$$x = 21,675$$

$$x = \frac{0,251-0,0661}{0,0083}$$

$$x = 22,277$$

NADES UAE R1 (1:1) - NADES UAE R2 (1:1) - NADES UAE R3 (1:1)

$$x = \frac{0,345-0,0661}{0,0083}$$

$$x = 33,602$$

$$x = \frac{0,339-0,0661}{0,0083}$$

$$x = 32,880$$

$$x = \frac{0,339-0,0661}{0,0083}$$

$$x = 32,880$$

NADES UAE R1 (1:2) - NADES UAE R2 (1:2) - NADES UAE R3 (1:2)

$$x = \frac{0,289-0,0661}{0,0083}$$

$$x = 26,855$$

$$x = \frac{0,290-0,0661}{0,0083}$$

$$x = 26,976$$

$$x = \frac{0,275-0,0661}{0,0083}$$

$$x = 25,169$$

NADES UAE R1 (2:1) - NADES UAE R2 (2:1) - NADES UAE R3 (2:1)

$$x = \frac{0,263-0,0661}{0,0083}$$

$$x = 23,723$$

$$x = \frac{0,260-0,0661}{0,0083}$$

$$x = 23,361$$

$$x = \frac{0,259-0,0661}{0,0083}$$

$$x = 23,241$$

NADES UAE R1 (1:3) - NADES UAE R2 (1:3) - NADES UAE R3 (1:3)

$$x = \frac{0,443-0,0661}{0,0083}$$

$$x = 45,410$$

$$x = \frac{0,431-0,0661}{0,0083}$$

$$x = 43,964$$

$$x = \frac{0,430-0,0661}{0,0083}$$

$$x = 43,843$$

NADES UAE R1 (3:1) - NADES UAE R2 (3:1) - NADES UAE R3 (3:1)

$$x = \frac{0,268-0,0661}{0,0083}$$

$$x = 24,325$$

$$x = \frac{0,260-0,0661}{0,0083}$$

$$x = 23,361$$

$$x = \frac{0,255-0,0661}{0,0083}$$

$$x = 22,759$$

$$X(\text{mg/mL}) = \frac{\mu\text{g/mL}}{1000}$$

- mg EK/g simplisia

$$\text{Konvensional UAE} = \frac{c.V.Fp}{m} = \frac{0,0263.40.5}{2} = 2,593 \text{ mg EK/g simplisia}$$

$$\begin{aligned} \text{Konvensional Refluks 1000 ppm} &= \frac{c.V.Fp}{m} = \frac{0,0121.25.8}{0,2} = 12,518 \text{ mg EK/g simplisia} \\ &= \frac{12,518.1,672}{5} = 4,186 \text{ mg EK/g simplisia} \end{aligned}$$

$$\begin{aligned} \text{Konvensional Refluks 2000 ppm} &= \frac{c.V.Fp}{m} = \frac{0,0213.25.4}{0,2} = 10,878 \text{ mg EK/g simplisia} \\ &= \frac{10,878.1,672}{5} = 3,637 \text{ mg EK/g simplisia} \end{aligned}$$

$$\text{NADES 1:1} = \frac{c.V.Fp}{m} = \frac{0,0336.40.5}{2} = 3,312 \text{ mg EK/g simplisia}$$

$$\text{NADES 1:2} = \frac{c.V.Fp}{m} = \frac{0,0268.40.5}{2} = 2,633 \text{ mg EK/g simplisia}$$

$$\text{NADES 1:3} = \frac{c.V.Fp}{m} = \frac{0,0722.40.5}{2} = 4,441 \text{ mg EK/g simplisia}$$

$$\text{NADES 2:1} = \frac{c.V.Fp}{m} = \frac{0,0590.40.5}{2} = 2,344 \text{ mg EK/g simplisia}$$

$$\text{NADES 3:1} = \frac{c.V.Fp}{m} = \frac{0,0503.40.5}{2} = 2,348 \text{ mg EK/g simplisia}$$

Lampiran 30. Pengenceran Ekstrak Daun Matoa

$$1). 20\% = V1 \cdot C1 = V2 \cdot C2$$

$$V1 \cdot 100\% = 5 \text{ ml} \cdot 20\%$$

$$V1 = \frac{100\%}{100} = 1 \text{ ml ekstrak (+ aquadest 4ml)}$$

$$2). 30\% = V1 \cdot C1 = V2 \cdot C2$$

$$V1 \cdot 100\% = 5 \text{ ml} \cdot 30\%$$

$$V1 = \frac{150\%}{100} = 1,5 \text{ ml ekstrak (+ aquadest 3,5ml)}$$

$$3). 50x = V1 \cdot C1 = V2 \cdot C2$$

$$V1 \cdot 100\% = 5 \text{ ml} \cdot 50\%$$

$$V1 = \frac{250\%}{100} = 2,5 \text{ ml ekstrak (+ aquadest 2,5ml)}$$

$$4). 100x = V1 \cdot C1 = V2 \cdot C2$$

$$V1 \cdot 100\% = 5 \text{ ml} \cdot 100\%$$

$$V1 = \frac{500\%}{100} = 5 \text{ ml ekstrak}$$

Lampiran 31. Perhitungan parameter non spesifik dan spesifik

1. Susut Pengerinan

Berat krus kosong (a) : 31,930 g

Berat krus + simplisia sebelum dipanaskan (b) : 33,935 g

Berat krus + simplisia setelah dipanaskan (c) : 33,765 g

$$\begin{aligned} \% \text{ Susut Pengerinan} &= \frac{(B-A)-(C-A)}{(B-A)} \times 100\% \\ &= \frac{(33,935-31,930)-(33,765-31,930)}{(33,935-31,930)} \times 100\% \\ &= \frac{2,005-1,835}{2,005} \times 100\% \\ &= 8,47\% \end{aligned}$$

2. Kadar air

Bobot simplisia awal (p) = 2,005 g

Bobot cawan + simplisia setelah kering (q) = 29,330 g

Bobot cawan kosong (r) = 27,470 g

$$\begin{aligned} \% \text{ Kadar Air} &= \frac{p-(q-r)}{p} \times 100\% \\ &= \frac{2,005-(29,330-27,470)}{2,005} \times 100\% \\ &= 7,23\% \end{aligned}$$

3. Kadar abu total

Berat abu sisa pijar (a) = 0,178 g

Berat simplisia (b) = 2 g

$$\begin{aligned} \% \text{ Kadar Abu Total} &= \frac{a}{b} \times 100\% \\ &= \frac{0,178}{2000} \times 100\% \\ &= 8,9\% \end{aligned}$$

4. Kadar abu tidak larut asam

Berat abu sisa pijar (a) = 0,044 g

Berat simplisia (b) = 2 g

$$\begin{aligned} \% \text{ Kadar abu tidak larut asam} &= \frac{a}{b} \times 100\% \\ &= \frac{0,044}{2000} \times 100\% \\ &= 2,2\% \end{aligned}$$

5. Kadar sari larut air

Berat sari (a) = 0,176 g

Berat sampel (b) = 5,011 g

$$\begin{aligned} \% \text{ Kadar sari larut air} &= \frac{a}{b} \times 100\% \\ &= \frac{0,176}{5,011} \times \frac{100}{20} \times 100 \end{aligned}$$

$$= \frac{1,760}{100,22}$$

$$= 17,56\%$$

6. Kadar sari larut etanol

Berat sari (a) = 0,26 g

Berat sampel (b) = 5,012 g

% Kadar sari larut etanol = $\frac{a}{b} \times 100\%$

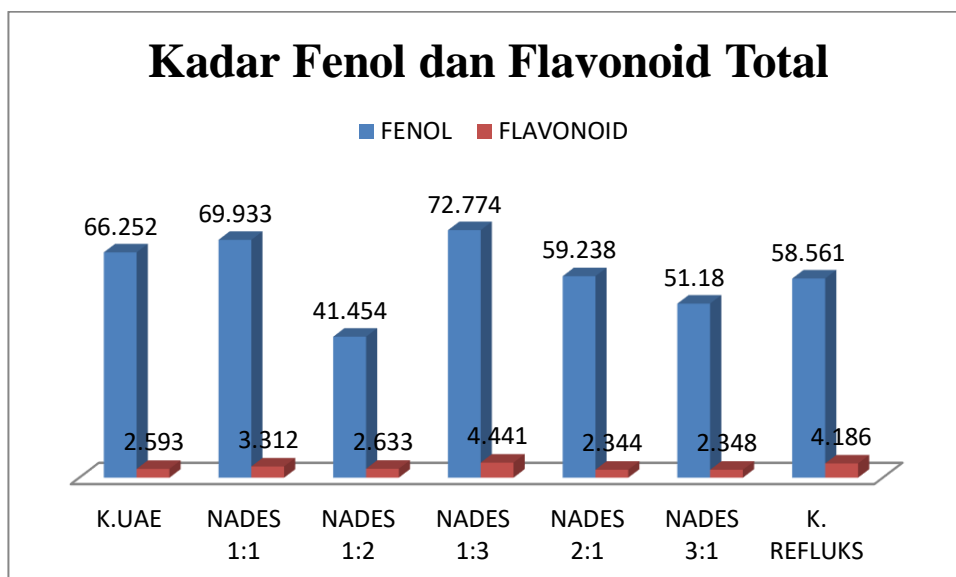
$$= \frac{0,26}{5,012} \times \frac{100}{20} \times 100$$

$$= \frac{2,600}{100,24}$$

$$= 25,93\%$$

Lampiran 32. Diagram Fenol dan Flavonoid Total

	FENOL	FLAVONOID
K.UAE	66.252	2.593
NADES 1:1	69.933	3.312
NADES 1:2	41.454	2.633
NADES 1:3	72.774	4.441
NADES 2:1	59.238	2.344
NADES 3:1	51.18	2.348
K. REFLUKS	58,561	4.186



Lampiran 33. Hasil Analisa Data Uji Aktivitas Antibakteri

1. *Shigella dysentri*

Tujuan	:	Mengetahui ada tidaknya perbedaan daya hambat bakteri <i>Shigella dysentri</i> yang signifikan antara ekstrak konvensional refluks, UAE, ekstrak NADES
Hipotesis	:	Ho : Tidak terdapat perbedaan yang signifikan daya hambat bakteri <i>Shigella dysentri</i> antara ekstrak konvensional refluks, UAE, ekstrak NADES Ha : terdapat perbedaan yang signifikan daya hambat bakteri <i>Shigella dysentri</i> antara ekstrak konvensional refluks, UAE, ekstrak NADES
α	:	0,05
Kriteria	:	Ho ditolak jika nilai signifikannya $<\alpha$
Hasil	:	Nilai tidak Signifikan $>\alpha$
Kesimpulan	:	Ho diterima dan Ha ditolak, tidak terdapat perbedaan yang signifikan daya hambat bakteri <i>Shigella dysentri</i> antara ekstrak konvensional refluks, UAE, ekstrak NADES

a. Uji Normalitas

Tujuan : Untuk melihat perlakuan terhadap bakteri *Shigella dysentri* terdistribusi normal / tidak

		Tests of Normality					
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Ekstrak		c	df	Sig.	c	df	Sig.
<i>Shigella dysentri</i>	ekstrak refluks	.367	3	.	.793	3	.097
	ekstrak uae	.231	3	.	.980	3	.731
	ekstrak nades	.358	3	.	.812	3	.144

Kesimpulan : **Nilai sig.** pada uji normalitas menunjukkan angka $\geq 0,05$,

Perlakuan terhadap bakteri *Shigella dysentri* terdistribusi **normal**.

b. Uji Homogenitas Levene

Tujuan : untuk melihat varian data perlakuan terhadap bakteri *Shigella dysentri* homogen / tidak

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
<i>Shigella dysentri</i>	Based on Mean	3.591	2	6	.094
	Based on Median	1.617	2	6	.274
	Based on Median and with adjusted df	1.617	2	3.289	.324
	Based on trimmed mean	3.438	2	6	.101

Kesimpulan : **Nilai sig.** pada uji homogenitas menunjukkan angka $\geq 0,05$, Berdasarkan angka tersebut maka perlakuan terhadap bakteri *Shigella dysentri* adalah **homogen**.

c. Uji One Way Anova

ANOVA

shigella	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.744	2	3.372	1.228	.357
Within Groups	16.480	6	2.747		
Total	23.224	8			

Kesimpulan : **Nilai sig.** pada uji *One Way Anova* menunjukkan angka $\geq 0,01$, perlakuan terhadap bakteri *Shigella dysentri* **tidak terdapat perbedaan yang bermakna**.

2. *Bacillus cereus*

Tujuan	:	Mengetahui ada tidaknya perbedaan daya hambat bakteri <i>Bacillus cereus</i> yang signifikan antara ekstrak konvensional refluks, UAE, ekstrak NADES
Hipotesis	:	Ho : Tidak terdapat perbedaan yang signifikan daya hambat bakteri <i>Bacillus cereus</i> antara ekstrak konvensional refluks, UAE, ekstrak NADES Ha : terdapat perbedaan yang signifikan daya hambat bakteri <i>Bacillus cereus</i> antara ekstrak konvensional refluks, UAE, ekstrak NADES
α	:	0,05
Kriteria	:	Ho ditolak jika nilai signifikannya $<\alpha$
Hasil	:	Nilai Signifikan $<\alpha$
Kesimpulan	:	Ho ditolak dan Ha diterima, terdapat perbedaan yang signifikan daya hambat bakteri <i>Bacillus cereus</i> antara ekstrak konvensional refluks, UAE, ekstrak NADES

a. Uji Normalitas

Tujuan : Untuk melihat perlakuan terhadap bakteri *Bacillus cereus* terdistribusi normal / tidak

Tests of Normality

ekstrak	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
bacillus ekstrak refluks	.	3	.	.	3	.
ekstrak uae	.385	3	.	.750	3	<,001
ekstrak nades	.380	3	.	.763	3	.029

a. Lilliefors Significance Correction

Kesimpulan : **Nilai sig.** pada uji normalitas menunjukkan angka $\geq 0,05$,

Perlakuan terhadap bakteri *Bacillus cereus* terdistribusi **tidak normal**.

Test Statistics^{a,b}

	basilus
Kruskal-Wallis H	6.720
Df	2
Asymp. Sig.	.035

Karena data tidak terdistribusi normal maka digunakan analisis non parametrik
Nilai $<0,05$ berkesimpulan ada perbedaan yang signifikan

Lampiran 34. One Way Anova Test

Kadar Fenol Total

- Tujuan : Mengetahui ada tidaknya perbedaan kadar fenol total yang signifikan antara ekstrak konvensional refluks, UAE, ekstrak NADES
- Hipotesis :
 Ho : Tidak terdapat perbedaan kadar fenol total yang signifikan antara ekstrak konvensional refluks, UAE, ekstrak NADES
 Ha : terdapat perbedaan kadar fenol total yang signifikan antara ekstrak konvensional refluks, UAE, ekstrak NADES
- α : 0,05
- Kriteria : Ho ditolak jika nilai signifikannya $< \alpha$
- Hasil : Nilai Signifikan $< \alpha$
- Kesimpulan : Ho ditolak dan Ha diterima, terdapat perbedaan yang signifikan kadar fenol total antara ekstrak konvensional refluks, UAE, ekstrak NADES

Tests of Normality

PELARUT	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KFT Konvensional UAE	.175	3	.	1.000	3	1.000
NADES 1:1	.197	3	.	.996	3	.876
NADES 1:2	.337	3	.	.855	3	.253
NADES 2:1	.328	3	.	.871	3	.298
NADES 1:3	.175	3	.	1.000	3	1.000
NADES 3:1	.181	3	.	.999	3	.941
Konvensional Refluks	.337	3	.	.855	3	.254

Data terdistribusi normal jika nilai nya $> 0,05$

Tests of Homogeneity of Variances

KFT		Levene Statistic	df1	df2	Sig.
		Based on Mean	1.304	6	14
Based on Median	.945	6	14	.495	
Based on Median and with adjusted df	.945	6	8.337	.512	
Based on trimmed mean	1.286	6	14	.325	

Data homogen jika nilainya $> 0,05$

ANOVA

KFT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2186.992	6	364.499	1850.815	<.001
Within Groups	2.757	14	.197		
Total	2189.749	20			

Data ada perbedaan yang signifikan jika nilai < 0,05

Kadar Flavonoid Total

Tujuan	:	Mengetahui ada tidaknya perbedaan kadar flavonoid total yang signifikan antara ekstrak konvensional refluks, UAE, ekstrak NADES
Hipotesis	:	Ho : Tidak terdapat perbedaan kadar flavonoid total yang signifikan antara ekstrak konvensional refluks, UAE, ekstrak NADES Ha : terdapat perbedaan kadar flavonoid total yang signifikan antara ekstrak konvensional refluks, UAE, ekstrak NADES
α	:	0,05
Kriteria	:	Ho ditolak jika nilai signifikannya $<\alpha$
Hasil	:	Nilai Signifikan $<\alpha$
Kesimpulan	:	Ho ditolak dan Ha diterima, terdapat perbedaan yang signifikan kadar flavonoid total antara ekstrak konvensional refluks, UAE, ekstrak NADES

Tests of Normality

PELARUT	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
KFLT Konvensional UAE	.204	3	.	.993	3	.843
NADES 1:1	.385	3	.	.750	3	<,001
NADES 1:2	.364	3	.	.799	3	.113
NADES 2:1	.292	3	.	.923	3	.463
NADES 1:3	.361	3	.	.807	3	.131
NADES 3:1	.229	3	.	.982	3	.742
Konvensional Refluks	.175	3	.	1.000	3	1.000

Data terdistribusi normal jika nilai nya $>0,05$

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
KFLT	Based on Mean	1.429	6	14	.272
	Based on Median	.440	6	14	.840
	Based on Median and with adjusted df	.440	6	8.330	.834
	Based on trimmed mean	1.337	6	14	.305

Data homogen jika nilainya $>0,05$

ANOVA
KFLT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.885	6	2.314	377.589	<,001
Within Groups	.086	14	.006		
Total	13.971	20			

Data ada perbedaan yang signifikan jika nilai < 0,05

Lampiran 35. Pearson Correlation Test

Korelasi Kadar Fenol Total dan Daya Hambat bakteri *Shigella dysentri*

Tujuan	:	Mengetahui korelasi kadar fenol total terhadap aktivitas daya hambat bakteri <i>Shigella dysentri</i>
Hipotesis	:	Ho : Tidak terdapat korelasi kadar fenol total terhadap aktivitas daya hambat bakteri <i>Shigella dysentri</i> Ha : terdapat korelasi kadar fenol total terhadap aktivitas daya hambat bakteri <i>Shigella dysentri</i>
α	:	0,05
Kriteria	:	Ho ditolak jika nilai signifikannya $<\alpha$
Hasil	:	Nilai Signifikan $>\alpha$
Kesimpulan	:	Ho diterima dan Ha ditolak, tidak terdapat hubungan korelasi antara kadar fenol total dan aktivitas daya hambat <i>Shigella dysentri</i>

One-Sample Kolmogorov-Smirnov Test

		KFT	<i>shigela</i>	
N		9	9	
Normal Parameters ^{a,b}	Mean	65.8623	4.7611	
	Std. Deviation	6.16856	1.70382	
Most Extreme Differences	Absolute	.205	.193	
	Positive	.205	.193	
	Negative	-.186	-.150	
Test Statistic		.205	.193	
Asymp. Sig. (2-tailed) ^c		.200	.200	
Monte Carlo Sig. (2-tailed) ^e	Sig.	.340	.432	
	99% Confidence Interval	Lower Bound	.328	.419
		Upper Bound	.352	.445

Nilai lebih $>0,05$ maka terdistribusi normal

Correlations

		KFT	<i>Shigela</i>
KFT	Pearson Correlation	1	-.524
	Sig. (2-tailed)		.148
	N	9	9
Shigela	Pearson Correlation	-.524	1
	Sig. (2-tailed)	.148	
	N	9	9

Jika nilai $<0,05$ maka ada perbedaan yang signifikan

Korelasi kadar Flavonoid Total dan Daya Hambat Bakteri *Shigella dysentri*

- Tujuan : Mengetahui korelasi kadar flavonoid total terhadap aktivitas daya hambat bakteri *Shigella dysentri*
- Hipotesis :
 Ho : Tidak terdapat korelasi kadar flavonoid total terhadap aktivitas daya hambat bakteri *Shigella dysentri*
 Ha : terdapat korelasi kadar flavonoid total terhadap aktivitas daya hambat bakteri *Shigella dysentri*
- α : 0,05
- Kriteria : Ho ditolak jika nilai signifikannya $<\alpha$
- Hasil : Nilai Signifikan $>\alpha$
- Kesimpulan : Ho diterima dan Ha ditolak, tidak terdapat hubungan korelasi antara kadar flavonoid total dan aktivitas daya hambat *Shigella dysentri*

One-Sample Kolmogorov-Smirnov Test

		KFLT	<i>shigela</i>	
N		9	9	
Normal Parameters ^{a,b}	Mean	3.7398	4.7611	
	Std. Deviation	.87056	1.70382	
Most Extreme Differences	Absolute	.312	.193	
	Positive	.231	.193	
	Negative	-.312	-.150	
Test Statistic		.312	.193	
Asymp. Sig. (2-tailed) ^c		.012	.200	
Monte Carlo Sig. (2-tailed) ^d	Sig.	.012	.426	
	99% Confidence Interval	Lower Bound	.009	.413
		Upper Bound	.015	.439

Data terdistribusi normal jika nilai sig $>0,05$

Correlations

		KFT	<i>shigela</i>
KFT	Pearson Correlation	1	-.119
	Sig. (2-tailed)		.760
	N	9	9
<i>shigela</i>	Pearson Correlation	-.119	1
	Sig. (2-tailed)	.760	
	N	9	9

Terdapat korelasi jika nilai sig $<0,05$

Korelasi Kadar Fenol Total dan Daya Hambat Bakteri *Bacillus cereus*

Tujuan	:	Mengetahui korelasi kadar fenol total terhadap aktivitas daya hambat bakteri <i>Bacillus cereus</i>
Hipotesis	:	Ho : Tidak terdapat korelasi kadar fenol total terhadap aktivitas daya hambat bakteri <i>Bacillus cereus</i> Ha : terdapat korelasi kadar fenol total terhadap aktivitas daya hambat bakteri <i>Bacillus cereus</i>
α	:	0,05
Kriteria	:	Ho ditolak jika nilai signifikannya $<\alpha$
Hasil	:	Nilai Signifikan $<\alpha$
Kesimpulan	:	Ho ditolak dan Ha diterima, terdapat hubungan korelasi antara kadar fenol total dan aktivitas daya hambat <i>Bacillus cereus</i>

One-Sample Kolmogorov-Smirnov Test

		KFT	<i>B. Cereus</i>	
N		9	9	
Normal Parameters ^{a,b}	Mean	65.8623	1.7344	
	Std. Deviation	6.16856	2.89720	
Most Extreme Differences	Absolute	.205	.281	
	Positive	.205	.281	
	Negative	-.186	-.275	
Test Statistic		.205	.281	
Asymp. Sig. (2-tailed) ^c		.200	.039	
Monte Carlo Sig. (2-tailed) ^c	Sig.	.339	.040	
	99% Confidence Interval	Lower Bound	.327	.035
		Upper Bound	.351	.045

Data terdistribusi normal jika nilai sig $>0,05$

Correlations

		KFT	<i>B. Cereus</i>
KFT	Pearson Correlation	1	.734*
	Sig. (2-tailed)		.024
	N	9	9
basilus	Pearson Correlation	.734*	1
	Sig. (2-tailed)	.024	
	N	9	9

Terdapat korelasi jika nilai sig $<0,05$

Korelasi Kadar Flavonoid Total dan Daya Hambat Bakteri *Bacillus cereus*

Tujuan	:	Mengetahui korelasi kadar flavonoid total terhadap aktivitas daya hambat bakteri <i>Bacillus cereus</i>
Hipotesis	:	Ho : Tidak terdapat korelasi kadar flavonoid total terhadap aktivitas daya hambat bakteri <i>Bacillus cereus</i> Ha : terdapat korelasi kadar flavonoid total terhadap aktivitas daya hambat bakteri <i>Bacillus cereus</i>
α	:	0,05
Kriteria	:	Ho ditolak jika nilai signifikannya $< \alpha$
Hasil	:	Nilai Signifikan $> \alpha$
Kesimpulan	:	Ho diterima dan Ha ditolak, tidak terdapat hubungan korelasi antara kadar flavonoid total dan aktivitas daya hambat <i>Bacillus cereus</i>

One-Sample Kolmogorov-Smirnov Test

		KFLT	<i>B. cereus</i>	
N		9	9	
Normal Parameters ^{a,b}	Mean	3.7398	1.7344	
	Std. Deviation	.87056	2.89720	
Most Extreme Differences	Absolute	.312	.281	
	Positive	.231	.281	
	Negative	-.312	-.275	
Test Statistic		.312	.281	
Asymp. Sig. (2-tailed) ^c		.012	.039	
Monte Carlo Sig. (2-tailed) ^d	Sig.	.014	.039	
	99% Confidence Interval	Lower Bound	.011	.034
		Upper Bound	.017	.044

Data terdistribusi normal jika nilai sig $> 0,05$

Correlations

		KFLT	<i>B. cereus</i>
KFLT	Correlation Coefficient	1.000	.621
	Sig. (2-tailed)	.	.074
	N	9	9
basilus	Correlation Coefficient	.621	1.000
	Sig. (2-tailed)	.074	.
	N	9	9

Terdapat korelasi jika nilai sig $< 0,05$