

DAFTAR PUSTAKA

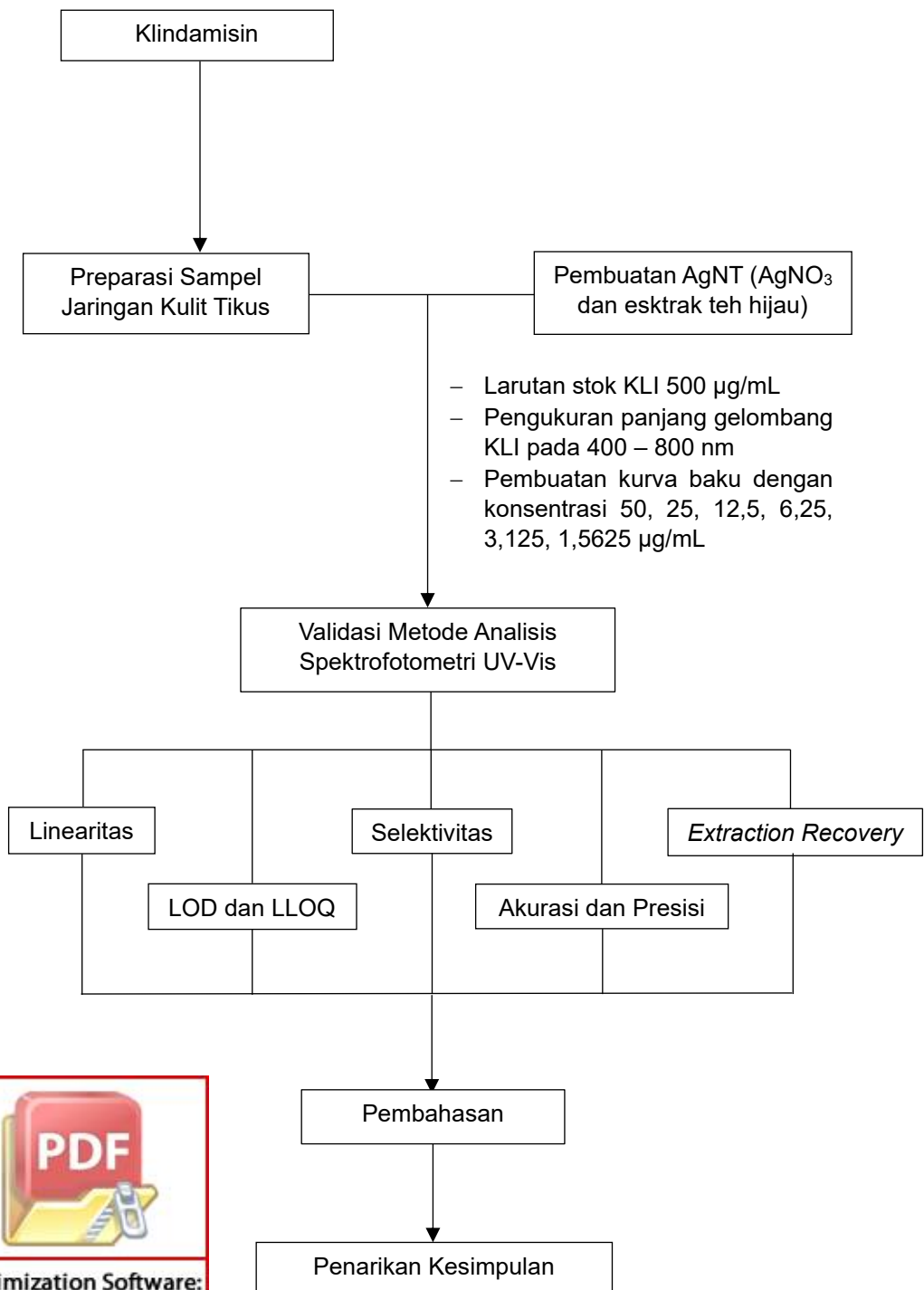
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LAMPIRAN**Lampiran 1. Skema kerja penelitian**

Lampiran 2. Data hasil validasi penetapan metode ekstraksi

Tabel 5. Metode ekstraksi KLI di jaringan kulit tikus (n = 3)

Metode	Volume (mL)	Abs 1	Abs 2	Abs 3	% <i>Extraction efficiency.1</i>	% <i>Extraction efficiency.2</i>	% <i>Extraction efficiency.3</i>	Rata-rata	SD	%RSD
A	MeOH 1x	0,202	0,207	0,237	17,29	17,73	20,26	18,43	1,31	7,10
B	MeOH 3x	0,411	0,452	0,486	35,19	38,69	41,57	38,48	1,73	4,48
C	MeOH 5x	1,034	1,023	0,986	88,53	87,59	84,45	86,86	1,64	1,89
D	MeOH 7x	1,013	1,064	1,041	86,72	91,08	89,16	88,99	1,16	1,31
E	ACN 1x	0,078	0,068	0,072	6,64	5,85	6,20	6,23	0,21	3,38
F	ACN 3x	0,096	0,105	0,117	0,54	8,99	10,04	6,53	1,80	27,65
G	ACN 5x	0,202	0,135	0,180	17,29	11,53	15,37	14,73	2,06	13,98
H	ACN 7x	0,441	0,574	0,508	37,73	49,17	43,49	43,46	3,29	7,56



Lampiran 3. Perhitungan persamaan regresi linear

Persamaan garis linear : $y = a + bx$

y = serapan (a)

x = konsentrasi ($\mu\text{g/mL}$)

Berdasarkan hasil perhitungan regresi diperoleh :

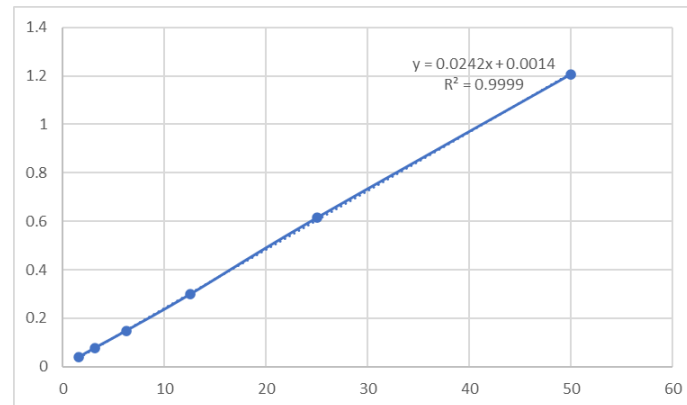
$a = 0,0014$

$b = 0,0242$

$r = 0,9999$

sehingga diperoleh persamaan :

$y = 0,0242x + 0,0014$



Gambar 6. Kurva baku klindamisin



Lampiran 4. Penentuan LOD dan LLOQ

Tabel 6. Penentuan LOD dan LLOQ KLI pada jaringan kulit tikus

Konsentrasi (x)	y1	y2	y3	y avg	y'	y avg - y'	(y avg - y') ²
50	1,186	1,174	1,261	1,20703333	1,2114	-0,004366667	0,0000190678
25	0,591	0,619	0,634	0,61478667	0,6064	0,008386667	0,0000703362
12,5	0,303	0,281	0,313	0,2989	0,3039	-0,005	0,000025
6,25	0,153	0,136	0,159	0,14928667	0,15265	-0,003363333	0,000011312
3,125	0,079	0,072	0,081	0,07742	0,077025	0,000395	0,000000156025
1,5625	0,047	0,031	0,043	0,04050667	0,0392125	0,001294167	0,00000167487
							$\Sigma = 0,0000212578$
							$b = 0,0242$
SD	0,005594046						
LOD	0,76						
LLOQ	2,31						
LQC	5						
MQC	15						
HQC	37,5						

$$SD = \sqrt{\frac{\Sigma(y \text{ avg} - y')^2}{n-2}} = \sqrt{\frac{0,0000212578}{6-2}} = 0,005594046$$

$$\frac{0,005594}{0,0242} = 0,76$$

$$\frac{0,005594}{0,0242} = 2,31$$



Lampiran 5. Penentuan akurasi dan presisi

Tabel 7. Penentuan akurasi dan presisi *inter-day*

Rep.	Konsentrasi yang digunakan	y1	y2	y3	Konsentrasi yang terukur.1	Konsentrasi yang terukur.2	Konsentrasi yang terukur.3	Rata-rata	SD	Presisi (%RSD)	Akurasi (%RE)
1	2,31	0,068	0,059	0,061	2,75	2,38	2,46	2,53	0,20	7,71	9,60
	5	0,132	0,127	0,135	5,38	5,21	5,54	5,38	0,17	3,10	7,51
	15	0,386	0,416	0,359	15,88	17,15	14,77	15,93	1,19	7,47	6,23
	37,5	0,888	0,966	0,867	36,62	39,85	35,76	37,41	2,16	5,76	-0,24
2	2,31	0,053	0,048	0,055	2,14	1,93	2,20	2,09	0,14	6,79	-9,61
	5	0,124	0,130	0,119	5,05	5,32	4,85	5,07	0,24	4,72	1,43
	15	0,392	0,404	0,367	16,16	16,63	15,12	15,97	0,77	4,85	6,45
	37,5	0,975	0,880	0,939	40,24	36,30	38,75	38,43	1,99	5,18	2,48
3	2,31	0,053	0,049	0,057	2,14	1,97	2,28	2,13	0,15	7,24	-7,77
	5	0,131	0,115	0,136	5,35	4,70	5,55	5,20	0,45	8,57	4,04
	15	0,356	0,383	0,383	14,67	15,79	15,79	15,41	0,64	4,18	2,75
	37,5	0,939	0,845	0,961	38,75	34,88	39,67	37,77	2,55	6,74	0,71

Tabel 8. Penentuan akurasi dan presisi *intra-day*

	y1	y2	y3	Konsentrasi yang terukur.1	Konsentrasi yang terukur.2	Konsentrasi yang terukur.3	Rata-rata	SD	Presisi (%RSD)	Akurasi (%RE)
	0,055	0,052	0,055	2,22	2,11	2,22	2,18	0,07	3,10	-5,42
	0,118	0,137	0,127	4,83	5,61	5,21	5,22	0,39	7,49	4,33
	0,404	0,380	0,388	16,65	15,66	15,98	16,10	0,51	3,14	7,33
	0,939	0,948	0,962	38,75	39,10	39,71	39,19	0,49	1,24	4,50



2	2,31	0,059	0,047	0,046	2,40	1,90	1,86	2,05	0,30	14,63	-11,17
	5	0,118	0,132	0,125	4,83	5,38	5,09	5,10	0,27	5,39	2,01
	15	0,410	0,394	0,387	16,90	16,23	15,93	16,36	0,50	3,03	9,04
	37,5	0,955	0,944	0,918	39,42	38,96	37,86	38,75	0,80	2,07	3,33
3	2,31	0,056	0,049	0,058	2,25	1,96	2,36	2,19	0,21	9,42	-5,29
	5	0,130	0,118	0,133	5,32	4,83	5,42	5,19	0,32	6,11	3,84
	15	0,422	0,386	0,437	17,37	15,88	17,99	17,08	1,08	6,34	13,88
	37,5	0,845	0,940	0,962	34,84	38,78	39,71	37,78	2,59	6,84	0,74

Perhitungan akurasi dan presisi :

Persamaan regresi : $y = 0,0242x + 0,0014$, sehingga

$$1. \text{ Konsentrasi yang terukur (x)} = \frac{y - 0,0014}{0,0242} = \frac{0,068 - 0,0014}{0,0242} = 2,75$$

$$2. \text{ Konsentrasi yang terukur (x)} = \frac{y - 0,0014}{0,0242} = \frac{0,059 - 0,0014}{0,0242} = 2,38$$

$$3. \text{ Konsentrasi yang terukur (x)} = \frac{y - 0,0014}{0,0242} = \frac{0,061 - 0,0014}{0,0242} = 2,46$$

$$\text{Rata - rata} : \frac{2,75 + 2,38 + 2,46}{3} = 2,53$$

$$\text{SD} : \frac{\sqrt{(2,53-2,75)^2 + (2,53-2,38)^2 + (2,53-2,46)^2}}{3 - 1} = 0,20$$

$$\frac{0,20}{2,53} \times 100 = \frac{0,20}{2,53} \times 100 = 7,71\%$$

$$\frac{\text{Konsentrasi terukur} - \text{konsentrasi yang digunakan}}{\text{konsentrasi yang digunakan}} \times 100 = \frac{2,53 - 2,31}{2,31} \times 100 = 9,60\%$$



Lampiran 6. Penentuan *extraction recovery*

Tabel 9. Data konsentrasi KLI dalam larutan murni

Konsentrasi	Abs 1	Abs 2	Abs 3	Rata-rata
2,31	0,056	0,048	0,050	0,051324
5	0,292	0,290	0,303	0,295113
15	0,581	0,586	0,591	0,586131
37,5	0,676	0,927	0,944	0,84918996

Tabel 10. Penentuan *extraction recovery* KLI

X	KLI murni	y1	y2	y3	%Recovery. 1	%Recovery. 2	%Recovery. 3	Rata-rata	SD	%RSD
2,31	0,051324	0,043	0,045	0,047	83,78	87,68	91,58	87,68	3,90	4,44
5	0,295113	0,273	0,254	0,263	92,51	86,07	89,12	89,23	3,22	3,61
15	0,586131	0,532	0,503	0,528	90,76	85,82	90,08	88,89	2,68	3,02
37,5	0,84918996	0,754	0,732	0,753	88,79	86,20	88,67	87,89	1,46	1,66

Perhitungan *extraction recovery* pada konsentrasi 2,31 µg/mL :

$$1. \%extraction\ recovery = \frac{\text{Absorbansi larutan setelah ekstraksi}}{\text{Rata-rata absorbansi larutan KLI murni}} \times 100\% = \frac{0,043}{0,051324} \times 100\% = 83,78\%$$

$$2. \%extraction\ recovery = \frac{\text{Absorbansi larutan setelah ekstraksi}}{\text{Rata-rata absorbansi larutan KLI murni}} \times 100\% = \frac{0,045}{0,051324} \times 100\% = 87,68\%$$

$$\%extraction\ recovery = \frac{\text{Absorbansi larutan setelah ekstraksi}}{\text{Rata-rata absorbansi larutan KLI murni}} \times 100\% = \frac{0,047}{0,051324} \times 100\% = 91,58\%$$

$$\frac{87,68 + 91,58}{3} = 87,68$$

$$\frac{\sqrt{(87,68-87,68)^2 + (87,68-91,58)^2}}{4-1} = 3,90$$

$$\frac{3,90}{87,68} \times 100 = 4,44\%$$



Lampiran 7. Dokumentasi



Gambar 7. Preparasi sampel jaringan kulit tikus



Gambar 8. Pembuatan AgNT



Gambar 9. Penyiapan larutan stok KLI





Gambar 10. Pengukuran menggunakan spektrofotometer UV-Vis



Gambar 11. Pembuatan bubuk jaringan kulit tikus

