

LAMPIRAN

Lampiran 1

Daftar Riwayat Hidup

Nama : Maharani Prima Ardedia
Nim : 1911102415130
Tempat, Tanggal Lahir : Samarinda, 23 juni 2001
Jenis Kelamin : Perempuan
Agama : Islam
Alamat : Jl. KS Tubun dalam No.25
Nomor Handphone : 083140716902
E-Mail : maharaniprima23@gmail.com



DATA PENDIDIKAN

Tahun 2006 - 2012 SD Negeri 016 Samarinda
Tahun 2012 - 2015 SMPN 1 Ssamarinda
Tahun 2015 - 2018 SMAN 16 Samarinda
Tahun 2019 - 2023 Universitas Muhammadiyah Kalimantan Timur

Lampiran 2

Surat Balasan Laboratorium UMKT



UMKT
Laboratorium

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web@umkt.ac.id ✉

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Nomor : 462/LBU/A.5/C/2023
Lampiran : -
Hal : Surat Keterangan Selesai Penelitian

Kepada Yth.

Ka. Prodi Farmasi
Di Tempat

Assalamu'alaikum Warahmatullahi Wabarakatuh

Yang bertanda tangan di bawah ini :

Nama : Rini Ernawati S.Pd.,M.Kes
Jabatan : Kepala Laboratorium
Instansi : Universitas Muhammadiyah Kalimantan Timur

Dengan ini menyatakan :

Nama : Maharani Prima Ardelia
NIM : 1911102415130
Program Studi : S1 Farmasi

**Judul Penelitian :Aktivitas Fraksi N-Heksan Dari Daun Bopot
(*Tabernaemontana divaricata R.Br*) Terhadap Penghambatan *Monomikroba Biofilm*
*Pseudomonas aeruginosa Dan Escherichia coli***

Telah selesai melakukan penelitian di Laboratorium Ilmu Ilmu Kesehatan Universitas Muhammadiyah Kalimantan Timur. Demikian Surat keterangan ini dibuat untuk dipergunakan sebagaimana mestinya.

Wassalamu'alaikum Warahmatullahi Wabarakatuh

Samarinda, 4 Rajab 1445 H

16 Januari 2024 M

Kepala Laboratorium Ilmu Kesehatan



Rini Ernawati, S.Pd, M.Kes

NIDN. 1102096902

LAMPIRAN 3

Hasil Determinasi Daun Bopot



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS MULAWARMAN FAKULTAS KEHUTANAN
LABORATORIUM EKOLOGI DAN KONSERVASI BIODIVERSITAS HUTAN TROPIS
Alamat : Kampus Unmul Gunung Kelua, Jl. Penajam Gd. B11 Lt. 1 Samarinda 75123
Telp./Fax (0541) 7273726, Email: lab.ekobio@fahutan.unmul.ac.id

Samarinda, 23 Februari 2023

Nomor : 48/UN17.4.08/LL/2023
Lampiran : -
Perihal : Hasil Identifikasi/Determinasi Tumbuhan

Kepada Yth.
Bpk./Ibu/Sdr(i). Lutfiyah Mega Srikandi Dimar (1911102415097)
Prodi S1 Farmasi Universitas Muhammadiyah Kalimantan Timur
di-
Tempat

Dengan hormat,

Bersama ini kami sampaikan hasil identifikasi/determinasi tumbuhan yang saudara kirimkan ke "Herbarium Mulawarman", Laboratorium Ekologi dan Konservasi Biodiversitas Hutan Tropis Fakultas Kehutanan Universitas Mulawarman Samarinda, adalah sebagai berikut:

Kingdom : Plantae
Phyllum : Tracheophyta
Class : Magnoliopsida
Order : Gentianales
Family : Apocynaceae
Genus : Tabernaemontana
Species : *Tabernaemontana divaricata* (L.) R.Br. ex Roem. & Schult.
Synonyms : *Ervatamia divaricata* (L.) Burkill, *Nerium divaricatum* L., *Ervatamia coronaria* (Jacq.) Stapf, *Ervatamia divaricata* var. *plena* (Roxb. ex Voigt) M.R.Almeida, *Ervatamia flabelliformis* Tsiang, *Ervatamia recurva* (Lindl.) Lace, *Ervatamia siamensis* (Warb. ex Pit.) Kerr, *Kopsia cochinchinensis* Kuntze, *Nerium coronarium* Jacq., *Reichardia grandiflora* Dennst., *Reichardia jasminoides* Dennst., *Taberna discolor* (Sw.) Miers, *Tabernaemontana citrifolia* Lunan, *Tabernaemontana coronaria* (Jacq.) Willd., *Tabernaemontana coronaria* var. *plena* Roxb. ex Voigt, *Tabernaemontana discolor* Sw., *Tabernaemontana flabelliformis* (Tsiang) P.T.Li, *Tabernaemontana gratissima* Lindl., *Tabernaemontana indica* Roem. & Schult., *Tabernaemontana lurida* Van Heurck & Müll.Arg., *Tabernaemontana recurva* Lindl., *Tabernaemontana siamensis* Warb. ex Pit., *Testudipes recurva* (Lindl.) Markgr., *Vinca alba* Noronha, *Jasminum zeylanicum* Burm.f. and *Nyctanthes acuminata* Burm.f.
Common name : Bopot

Demikian, semoga berguna bagi saudara.

Kepala,

Prof. Dr. Ir. Paulus Matius, M.Sc.
NIP. 195504111984031001

Tembusan:
Arsip

Lampiran 4

Perhitungan Rendemen Ekstraksi

$$\text{Rendemen} = \frac{\text{Berat Ekstrak}}{\text{Berat Simplisia}} \times 100\%$$

$$\text{Rendemen} = \frac{30,2 \text{ gr}}{500 \text{ gr}} \times 100\%$$

$$\text{Rendemen} = 0,0604 \times 100\%$$

$$\text{Rendemen} = 6,04\%$$

Lampiran 5

Hasil Pembacaan SPSS

Analysis Report



Experiment information:

Assay:	Maharani prima 620
Template:	
Date:	24/06/2023 09:04
Channels:	620 nm
Software version:	0.8.1.1

Notes:

Results													
Cell	Type	Sample Name	A/M	Group	OD 490 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
A1	S0	Std S0			0.1195	OK		100	*101.402	*101.972	0.1441	0.0289	20.040%
A2	S1	Std S1			0.1928	OK		50	99.075	99.067	0.2153	0.0165	7.655%
A3	S2	Std S2			0.1144	Error		25	*92.381	*102.081	0.2841	0.1131	39.812%
A4	P1	Positive control P1			0.0972	Error			*102.380	*102.431	0.0998	0.0087	8.737%
A5	N1	Negative control N1			0.4476	OK			*100.326	*96.178	0.1822	0.0820	45.000%
A6	N2	Negative control N2			0.3449	Error			*98.194	*96.178	0.2329	0.1322	56.754%
A7	S3	Std S3			0.2497	OK		100	99.325	97.094	0.2095	0.0287	13.680%
A8	S4	Std S4			0.5237	Error		50	*0.000	*96.178	0.4069	0.0800	19.652%
A9	S5	Std S5			0.2593	Error		25	99.259	96.278	0.2110	0.0357	16.900%
A10	P2	Positive control P2			0.1232	Error			*102.382	*101.891	0.0997	0.0149	14.985%
A11	N1	Negative control N1			0.1686	OK			100.326	100.743	0.1822	0.0820	45.000%
A12	N2	Negative control N2			0.2129	Error			98.194	99.179	0.2329	0.1322	56.754%
B1	S0	Std S0			0.1170	OK		100	*101.402	*102.025	0.1441	0.0289	20.040%
B2	S1	Std S1			0.2304	OK		50	99.075	98.332	0.2153	0.0165	7.655%
B3	S2	Std S2			0.2885	Error		25	*92.381	*90.752	0.2841	0.1131	39.812%
B4	P1	Positive control P1			0.0993	Error			*102.380	*102.389	0.0998	0.0087	8.737%
B5	N1	Negative control N1			0.1888	OK			100.326	100.104	0.1822	0.0820	45.000%
B6	N2	Negative control N2			0.1483	Error			98.194	101.296	0.2329	0.1322	56.754%
B7	S3	Std S3			0.1828	OK		100	99.325	100.305	0.2095	0.0287	13.680%
B8	S4	Std S4			0.4266	Error		50	*0.000	*96.178	0.4069	0.0800	19.652%
B9	S5	Std S5			0.1739	Error		25	99.259	100.587	0.2110	0.0357	16.900%

Results													
Cell	Type	Sample Name	A/M	Group	OD 490 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
B10	P2	Positive control P2			0.0926	Error			*102.382	*102.520	0.0997	0.0149	14.985%
B11	N1	Negative control N1			0.0771	OK			*100.326	*102.806	0.1822	0.0820	45.000%
B12	N2	Negative control N2			0.2633	Error			*98.194	*95.883	0.2329	0.1322	56.754%
C1	S0	Std S0			0.1518	OK		100	101.402	101.207	0.1441	0.0289	20.040%
C2	S1	Std S1			0.2062	OK		50	99.075	99.460	0.2153	0.0165	7.655%
C3	S2	Std S2			0.4327	Error		25	*92.381	*96.178	0.2841	0.1131	39.812%
C4	P1	Positive control P1			0.0892	Error			*102.380	*102.584	0.0998	0.0087	8.737%
C5	N1	Negative control N1			0.0944	OK			*100.326	*102.484	0.1822	0.0820	45.000%
C6	N2	Negative control N2			0.1661	Error			98.194	100.817	0.2329	0.1322	56.754%
C7	S3	Std S3			0.2234	OK		100	99.325	98.691	0.2095	0.0287	13.680%
C8	S4	Std S4			0.3723	Error		50	*0.000	*96.178	0.4069	0.0800	19.652%
C9	S5	Std S5			0.1799	Error		25	99.259	100.401	0.2110	0.0357	16.900%
C10	P2	Positive control P2			0.0964	Error			*102.382	*102.447	0.0997	0.0149	14.985%
C11	N1	Negative control N1			0.0966	OK			*100.326	*102.443	0.1822	0.0820	45.000%
C12	N2	Negative control N2			0.5642	Error			*98.194	*96.178	0.2329	0.1322	56.754%
D1	S0	Std S0			0.1882	OK		100	101.402	100.128	0.1441	0.0289	20.040%
D2	S1	Std S1			0.2317	OK		50	99.075	98.259	0.2153	0.0165	7.655%
D3	S2	Std S2			0.3006	Error		25	*92.381	*96.178	0.2841	0.1131	39.812%
D4	P1	Positive control P1			0.1134	Error			*102.380	*102.104	0.0998	0.0087	8.737%
D5	N1	Negative control N1			0.1907	OK			100.326	100.040	0.1822	0.0820	45.000%

Results													
Cell	Type	Sample Name	A/M	Group	OD 490 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
D6	N2	Negative control N2			0.1622	Error			98.194	100.925	0.2329	0.1322	56.754%
D7	S3	Std S3			0.1819	OK		100	99.325	100.335	0.2095	0.0287	13.680%
D8	S4	Std S4			0.3051	Error		50	*0.000	*96.178	0.4069	0.0800	19.652%
D9	S5	Std S5			0.2311	Error		25	99.259	98.294	0.2110	0.0357	16.900%
D10	P2	Positive control P2			0.0918	Error			*102.382	*102.534	0.0997	0.0149	14.985%
D11	N1	Negative control N1			0.1117	OK			*100.326	*102.138	0.1822	0.0820	45.000%
D12	N2	Negative control N2			0.5300	Error			*98.194	*96.178	0.2329	0.1322	56.754%
E1	S6	Std S6			0.1437	OK		100	*100.669	*101.411	0.1711	0.0472	27.562%
E2	S7	Std S7			0.3506	OK		50	*0.000	*96.178	0.3818	0.1460	38.241%
E3	S8	Std S8			0.6086	Error		25	*0.000	*96.178	0.3931	0.1627	41.399%
E4	P2	Positive control P2			0.0958	Error			*102.382	*102.458	0.0997	0.0149	14.985%
E5	N1	Negative control N1			0.1785	OK			100.326	100.444	0.1822	0.0820	45.000%
E6	N2	Negative control N2			0.2048	Error			98.194	99.514	0.2329	0.1322	56.754%
E7	S9	Std S9			0.1539	Error		100	97.596	101.152	0.2426	0.0940	38.721%
E8	S10	Std S10			0.2752	OK		50	*99.372	*94.310	0.2083	0.0449	21.562%
E9	S11	Std S11			0.2234	OK		25	96.178	98.695	0.2604	0.1007	38.690%
E10	P2	Positive control P2			0.0960	Error			*102.382	*102.454	0.0997	0.0149	14.985%
E11	N1	Negative control N1			0.1897	OK			100.326	100.076	0.1822	0.0820	45.000%
E12	N2	Negative control N2			0.1919	Error			98.194	99.998	0.2329	0.1322	56.754%
F1	S6	Std S6			0.1565	OK		100	100.669	101.061	0.1711	0.0472	27.562%
F2	S7	Std S7			0.3330	OK		50	*0.000	*96.178	0.3818	0.1460	38.241%

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Results													
Cell	Type	Sample Name	A/M	Group	OD 490 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
F3	S8	Std S8			0.4665	Error		25	*0.000	*96.178	0.3931	0.1627	41.399%
F4	P2	Positive control P2			0.0962	Error			*102.382	*102.450	0.0997	0.0149	14.985%
F5	N1	Negative control N1			0.1698	OK			100.326	100.707	0.1822	0.0820	45.000%
F6	N2	Negative control N2			0.1525	Error			98.194	101.187	0.2329	0.1322	56.754%
F7	S9	Std S9			0.2258	Error		100	97.596	98.572	0.2426	0.0940	38.721%
F8	S10	Std S10			0.1875	OK		50	99.372	100.151	0.2083	0.0449	21.562%
F9	S11	Std S11			0.1929	OK		25	96.178	99.962	0.2604	0.1007	38.690%
F10	P2	Positive control P2			0.0988	Error			*102.382	*102.399	0.0997	0.0149	14.985%
F11	N1	Negative control N1			0.1989	OK			100.326	99.742	0.1822	0.0820	45.000%
F12	N2	Negative control N2			0.1642	Error			98.194	100.871	0.2329	0.1322	56.754%
G1	S6	Std S6			0.1328	OK		100	*100.669	*101.674	0.1711	0.0472	27.562%
G2	S7	Std S7			0.2235	OK		50	0.000	98.688	0.3818	0.1460	38.241%
G3	S8	Std S8			0.1700	Error		25	0.000	100.704	0.3931	0.1627	41.399%
G4	P2	Positive control P2			0.1024	Error			*102.382	*102.328	0.0997	0.0149	14.985%
G5	N1	Negative control N1			0.2087	OK			100.326	99.356	0.1822	0.0820	45.000%
G6	N2	Negative control N2			0.1150	Error			*98.194	*102.069	0.2329	0.1322	56.754%
G7	S9	Std S9			0.1916	Error		100	97.596	100.009	0.2426	0.0940	38.721%
G8	S10	Std S10			0.2178	OK		50	99.372	98.959	0.2083	0.0449	21.562%
G9	S11	Std S11			0.1918	OK		25	96.178	100.002	0.2604	0.1007	38.690%
G10	P2	Positive control P2			0.0748	Error			*102.382	*102.848	0.0997	0.0149	14.985%

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Results													
Cell	Type	Sample Name	A/M	Group	OD 490 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
G11	N1	Negative control N1			0.1817	OK			100.326	100.341	0.1822	0.0820	45.000%
G12	N2	Negative control N2			0.2247	Error			98.194	98.629	0.2329	0.1322	56.754%
H1	S6	Std S6			0.2515	OK		100	100.669	96.954	0.1711	0.0472	27.562%
H2	S7	Std S7			0.6203	OK		50	*0.000	*96.178	0.3818	0.1480	38.241%
H3	S8	Std S8			0.3274	Error		25	*0.000	*96.178	0.3931	0.1627	41.399%
H4	P2	Positive control P2			0.1355	Error			*102.382	*101.611	0.0997	0.0149	14.985%
H5	N1	Negative control N1			0.2474	OK			100.326	97.270	0.1822	0.0820	45.000%
H6	N2	Negative control N2			0.0849	Error			*98.194	*102.665	0.2329	0.1322	56.754%
H7	S9	Std S9			0.3993	Error		100	*97.596	*96.178	0.2426	0.0940	38.721%
H8	S10	Std S10			0.1529	OK		50	99.372	101.178	0.2083	0.0449	21.562%
H9	S11	Std S11			0.4335	OK		25	*96.178	*96.178	0.2604	0.1007	38.690%
H10	P2	Positive control P2			0.0927	Error			*102.382	*102.518	0.0997	0.0149	14.985%
H11	N1	Negative control N1			0.1646	OK			100.326	100.858	0.1822	0.0820	45.000%
H12	N2	Negative control N2			0.1959	Error			98.194	99.856	0.2329	0.1322	56.754%

Assay Info



Variables and formulas		
Variable	Description	Formula
[P1_0]	K (Positive control)	Average[P1_0]
[P2_0]	K (Positive control)	Average[P2_0]
[N1_0]	K (Negative control)	Average[N1_0]
[N2_0]	K (Negative control)	Average[N2_0]
[T_0]	OD Sample	Average[T_0]
[S0]	Standard	Average[S0]
[S1]	Standard	Average[S1]
[S2]	Standard	Average[S2]
[S3]	Standard	Average[S3]
[S4]	Standard	Average[S4]
[S5]	Standard	Average[S5]
[S6]	Standard	Average[S6]
[S7]	Standard	Average[S7]
[S8]	Standard	Average[S8]
[S9]	Standard	Average[S9]
[S10]	Standard	Average[S10]
[S11]	Standard	Average[S11]
[B]	Background	Average[B]
[O]	Calc. concentration	Auto
[C]	Critical OD	[N1]+0.1
[F]	Coefficient of positivity	[T_0]/[C]

Result interpretation					
For variable	Conditional	Result 1 True	Result 1 False	Result 2 True	Result 2 False
[S0]	[S0]<[S1]	OK	Error		
[S1]	[S1]<[S2]	OK	Error		
[S2]	[S2]<[S3]	OK	Error		
[S3]	[S3]<[S4]	OK	Error		
[S4]	[S4]<[S5]	OK	Error		
[S5]	[S5]<[S6]	OK	Error		
[S6]	[S6]<[S7]	OK	Error		
[S7]	[S7]<[S8]	OK	Error		
[S8]	[S8]<[S9]	OK	Error		
[S9]	[S9]<[S10]	OK	Error		
[S10]	[S10]<[S11]	OK	Error		
[S11]	[S10]<[S11]	OK	Error		
[T]	((SMin)<[T])&&([T]<SMax)	Intrapolated	Extrapolated		
[P1]	[P1]>1	OK	Error		
[P2]	[P2]>1	OK	Error		

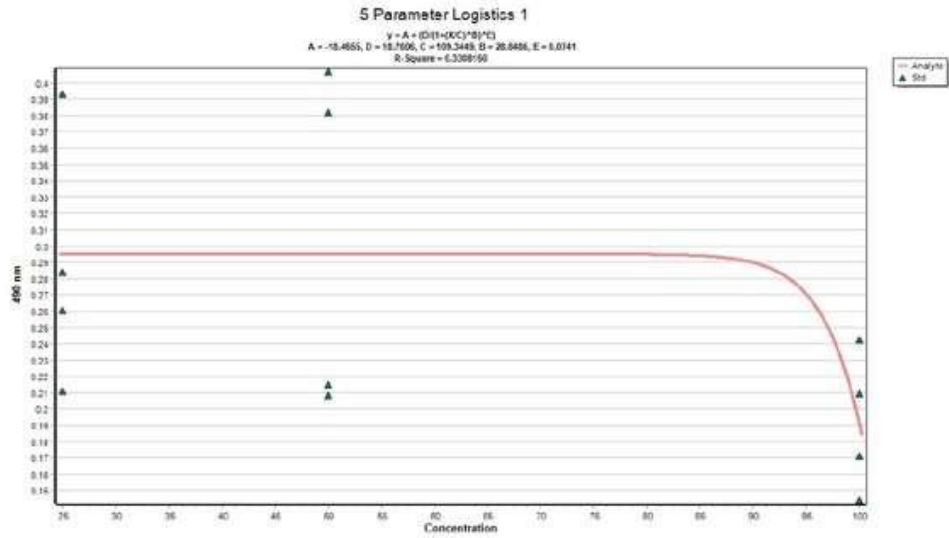
Result interpretation					
For variable	Conditional	Result 1 True	Result 1 False	Result 2 True	Result 2 False
[N1]	[N1]<0.2	OK	Error		
[N2]	[N2]<0.2	OK	Error		

Variable Calculations



Variables
0
[P1_0]=0.100
[P2_0]=0.100
[N1_0]=0.182
[N2_0]=0.233
[S0]=0.144
[S1]=0.215
[S2]=0.284
[S3]=0.209
[S4]=0.407
[S5]=0.211
[S6]=0.171
[S7]=0.382
[S8]=0.393
[S9]=0.243
[S10]=0.208
[S11]=0.260
[B]=Undefined
[C]=0.282
[L0]=0.208
[SMin]=0.144
[SMax]=0.260
[S0_Conc]=101.402
[S1_Conc]=99.075
[S2_Conc]=92.381
[S3_Conc]=99.325
[S4_Conc]=0.000
[S5_Conc]=99.259
[S6_Conc]=100.669
[S7_Conc]=0.000
[S8_Conc]=0.000
[S9_Conc]=97.596
[S10_Conc]=99.372
[S11_Conc]=96.178
[SMin_Conc]=101.402
[SMax_Conc]=96.178
[P1_0_Conc]=102.380
[P2_0_Conc]=102.382
[N1_0_Conc]=100.326
[N2_0_Conc]=98.194

Curve Fitting



Standards	Given Concentration	Calculated Concentration	OD 490 nm	Residuals	%Recovery	Sample Name	Cell
S0	100	*101.972	0.1195	1.972	101.972%	Std S0	A1
S1	50	99.967	0.1928	49.967	199.934%	Std S1	A2
S2	25	*102.081	0.1144	77.081	408.323%	Std S2	A3
S3	100	97.094	0.2497	-2.906	97.094%	Std S3	A7
S4	50	*96.178	0.5237	46.178	192.356%	Std S4	A8
S5	25	96.278	0.2593	71.278	385.112%	Std S5	A9
S0	100	*102.025	0.1170	2.025	102.025%	Std S0	B1
S1	50	98.332	0.2304	48.332	196.664%	Std S1	B2
S2	25	*90.752	0.2885	65.752	363.006%	Std S2	B3
S3	100	100.305	0.1828	0.305	100.305%	Std S3	B7
S4	50	*96.178	0.4266	46.178	192.356%	Std S4	B8
S5	25	100.587	0.1739	75.587	402.346%	Std S5	B9
S0	100	101.207	0.1518	1.207	101.207%	Std S0	C1
S1	50	99.460	0.2062	49.460	198.921%	Std S1	C2
S2	25	*96.178	0.4327	71.178	384.713%	Std S2	C3
S3	100	98.691	0.2234	-1.309	98.691%	Std S3	C7
S4	50	*96.178	0.3723	46.178	192.356%	Std S4	C8

Standards	Given Concentration	Calculated Concentration	OD 490 nm	Residuals	%Recovery	Sample Name	Cell
S5	25	100.401	0.1799	75.401	401.602%	Std S5	C9
S0	100	100.128	0.1882	0.128	100.128%	Std S0	D1
S1	50	98.259	0.2317	48.259	196.518%	Std S1	D2
S2	25	*96.178	0.3006	71.178	384.713%	Std S2	D3
S3	100	100.335	0.1819	0.335	100.335%	Std S3	D7
S4	50	*96.178	0.3051	46.178	192.356%	Std S4	D8
S5	25	98.294	0.2311	73.294	393.177%	Std S5	D9
S6	100	*101.411	0.1437	1.411	101.411%	Std S6	E1
S7	50	*96.178	0.3506	46.178	192.356%	Std S7	E2
S8	25	*96.178	0.6086	71.178	384.713%	Std S8	E3
S9	100	101.152	0.1539	1.152	101.152%	Std S9	E7
S10	50	*94.310	0.2752	44.310	188.619%	Std S10	E8
S11	25	98.695	0.2234	73.695	394.780%	Std S11	E9
S6	100	101.081	0.1565	1.081	101.081%	Std S6	F1
S7	50	*96.178	0.3330	46.178	192.356%	Std S7	F2
S8	25	*96.178	0.4665	71.178	384.713%	Std S8	F3
S9	100	98.572	0.2258	-1.428	98.572%	Std S9	F7
S10	50	100.151	0.1875	50.151	200.302%	Std S10	F8
S11	25	99.962	0.1929	74.962	399.850%	Std S11	F9
S6	100	*101.674	0.1328	1.674	101.674%	Std S6	G1
S7	50	98.688	0.2235	48.688	197.375%	Std S7	G2
S8	25	100.704	0.1700	75.704	402.815%	Std S8	G3
S9	100	100.009	0.1916	0.009	100.009%	Std S9	G7
S10	50	98.959	0.2178	48.959	197.918%	Std S10	G8
S11	25	100.002	0.1918	75.002	400.010%	Std S11	G9
S6	100	96.954	0.2515	-3.046	96.954%	Std S6	H1
S7	50	*96.178	0.6203	46.178	192.356%	Std S7	H2
S8	25	*96.178	0.3274	71.178	384.713%	Std S8	H3
S9	100	*96.178	0.3993	-3.822	96.178%	Std S9	H7
S10	50	101.178	0.1529	51.178	202.356%	Std S10	H8
S11	25	*96.178	0.4335	71.178	384.713%	Std S11	H9

Results													
Cell	Type	Sample Name	A/M	Group	OD 620 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
A1	S0	Std S0			0.3099	OK		100	*96.110	*154.278	0.4147	0.0683	16.472%
A2	S1	Std S1			0.5411	OK		50	*57.598	*42.964	0.5029	0.1893	37.648%
A3	S2	Std S2			0.8422	Error		25	*-37.541	*-45.423	0.8096	0.1011	12.488%
A4	P1	Positive control P1			0.1359	Error			*388.189	*318.948	0.0961	0.0230	23.934%
A5	N1	Negative control N1			0.5629	OK			*347.231	*35.055	0.1180	0.1158	98.199%
A6	N2	Negative control N2			0.5176	Error			*208.092	*51.815	0.2367	0.1945	82.175%
A7	S3	Std S3			0.8112	Error		100	*-21.044	*-37.921	0.7455	0.1190	15.966%
A8	S4	Std S4			1.0326	Error		50	*25.553	*-86.139	0.5904	0.3510	59.453%
A9	S5	Std S5			0.2342	OK		25	*152.012	*210.244	0.3135	0.0584	18.622%
A10	P2	Positive control P2			0.0844	Error			*414.940	*414.168	0.0841	0.0187	22.285%
A11	N1	Negative control N1			0.0966	OK			*347.231	*387.057	0.1180	0.1158	98.199%
A12	N2	Negative control N2			0.2199	Error			*208.092	*222.807	0.2367	0.1945	82.175%
B1	S0	Std S0			0.3986	OK		100	*96.110	*103.992	0.4147	0.0683	16.472%
B2	S1	Std S1			0.5616	OK		50	*57.598	*35.519	0.5029	0.1893	37.648%
B3	S2	Std S2			0.9529	Error		25	*-37.541	*-70.080	0.8096	0.1011	12.488%
B4	P1	Positive control P1			0.0821	Error			*388.189	*419.643	0.0961	0.0230	23.934%
B5	N1	Negative control N1			0.0735	OK			*347.231	*441.714	0.1180	0.1158	98.199%
B6	N2	Negative control N2			0.1608	Error			*208.092	*285.370	0.2367	0.1945	82.175%
B7	S3	Std S3			0.5396	Error		100	*-21.044	*43.497	0.7455	0.1190	15.966%
B8	S4	Std S4			0.8313	Error		50	*25.553	*-42.808	0.5904	0.3510	59.453%
B9	S5	Std S5			0.2837	OK		25	*152.012	*171.924	0.3135	0.0584	18.622%

Results													
Cell	Type	Sample Name	A/M	Group	OD 620 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
B10	P2	Positive control P2			0.1019	Error			*414.940	*376.539	0.0841	0.0187	22.285%
B11	N1	Negative control N1			0.0711	OK			*347.231	*448.511	0.1180	0.1158	98.199%
B12	N2	Negative control N2			0.1114	Error			*208.092	*358.661	0.2367	0.1945	82.175%
C1	S0	Std S0			0.4833	OK		100	*96.110	*65.526	0.4147	0.0683	16.472%
C2	S1	Std S1			0.7130	OK		50	*57.598	*-12.140	0.5029	0.1893	37.648%
C3	S2	Std S2			0.6778	Error		25	*-37.541	*-2.040	0.8096	0.1011	12.488%
C4	P1	Positive control P1			0.0822	Error			*388.189	*419.469	0.0961	0.0230	23.934%
C5	N1	Negative control N1			0.1311	OK			*347.231	*326.088	0.1180	0.1158	98.199%
C6	N2	Negative control N2			0.0623	Error			*208.092	*474.884	0.2367	0.1945	82.175%
C7	S3	Std S3			0.8063	Error		100	*-21.044	*-36.711	0.7455	0.1190	15.966%
C8	S4	Std S4			0.3026	Error		50	*25.553	*159.074	0.5904	0.3510	59.453%
C9	S5	Std S5			0.3518	OK		25	*152.012	*128.955	0.3135	0.0584	18.622%
C10	P2	Positive control P2			0.1355	Error			*414.940	*319.597	0.0841	0.0187	22.285%
C11	N1	Negative control N1			0.0813	OK			*347.231	*421.623	0.1180	0.1158	98.199%
C12	N2	Negative control N2			0.1120	Error			*208.092	*357.521	0.2367	0.1945	82.175%
D1	S0	Std S0			0.4669	OK		100	*96.110	*72.427	0.4147	0.0683	16.472%
D2	S1	Std S1			0.1958	OK		50	*57.598	*246.038	0.5029	0.1893	37.648%
D3	S2	Std S2			0.7656	Error		25	*-37.541	*-26.384	0.8096	0.1011	12.488%
D4	P1	Positive control P1			0.0842	Error			*388.189	*414.554	0.0961	0.0230	23.934%
D5	N1	Negative control N1			0.0734	OK			*347.231	*441.935	0.1180	0.1158	98.199%

Results													
Cell	Type	Sample Name	A/M	Group	OD 620 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
D6	N2	Negative control N2			0.0722	Error			*208.092	*445.175	0.2367	0.1945	82.175%
D7	S3	Std S3			0.8247	Error	100	*21.044	*41.231	0.7455	0.1190	15.968%	
D8	S4	Std S4			0.1950	Error	50	*25.553	*246.852	0.5904	0.3510	59.453%	
D9	S5	Std S5			0.3841	OK	25	*152.012	*111.410	0.3135	0.0584	18.622%	
D10	P2	Positive control P2			0.0663	Error			*414.940	*462.315	0.0841	0.0187	22.285%
D11	N1	Negative control N1			0.0996	OK			*347.231	*380.951	0.1180	0.1158	98.199%
D12	N2	Negative control N2			0.5307	Error			*208.092	*46.834	0.2367	0.1945	82.175%
E1	S6	Std S6			0.8189	Error	100	*41.822	*39.812	0.5442	0.1712	31.462%	
E2	S7	Std S7			0.2569	OK	50	*221.071	*191.757	0.2218	0.0979	44.119%	
E3	S8	Std S8			0.8836	Error	25	*27.319	*54.998	0.7692	0.2746	35.698%	
E4	P2	Positive control P2			0.0633	Error			*414.940	*416.662	0.0841	0.0187	22.285%
E5	N1	Negative control N1			0.0921	OK			*347.231	*396.602	0.1180	0.1158	98.199%
E6	N2	Negative control N2			0.0898	Error			*208.092	*401.638	0.2367	0.1945	82.175%
E7	S9	Std S9			0.4601	OK	100	*35.464	*75.345	0.5618	0.0723	12.868%	
E8	S10	Std S10			0.5567	Error	50	*31.775	*37.294	0.5723	0.2026	35.395%	
E9	S11	Std S11			0.7994	Error	25	*82.919	*35.004	0.4430	0.2353	53.110%	
E10	P2	Positive control P2			0.0681	Error			*414.940	*456.890	0.0841	0.0187	22.285%
E11	N1	Negative control N1			0.0747	OK			*347.231	*438.404	0.1180	0.1158	98.199%
E12	N2	Negative control N2			0.5606	Error			*208.092	*35.885	0.2367	0.1945	82.175%
F1	S6	Std S6			0.5235	Error	100	*41.822	*49.570	0.5442	0.1712	31.462%	
F2	S7	Std S7			0.1267	OK	50	*221.071	*333.019	0.2218	0.0979	44.119%	

Results													
Cell	Type	Sample Name	A/M	Group	OD 620 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
F3	S8	Std S8			0.4756	Error	25	*27.319	*68.727	0.7692	0.2746	35.698%	
F4	P2	Positive control P2			0.0964	Error			*414.940	*387.587	0.0841	0.0187	22.285%
F5	N1	Negative control N1			0.0888	OK			*347.231	*403.923	0.1180	0.1158	98.199%
F6	N2	Negative control N2			0.0800	Error			*208.092	*482.318	0.2367	0.1945	82.175%
F7	S9	Std S9			0.5305	OK	100	*35.464	*46.908	0.5618	0.0723	12.868%	
F8	S10	Std S10			0.8104	Error	50	*31.775	*37.726	0.5723	0.2026	35.395%	
F9	S11	Std S11			0.3123	Error	25	*82.919	*152.757	0.4430	0.2353	53.110%	
F10	P2	Positive control P2			0.0746	Error			*414.940	*438.755	0.0841	0.0187	22.285%
F11	N1	Negative control N1			0.0802	OK			*347.231	*424.422	0.1180	0.1158	98.199%
F12	N2	Negative control N2			0.5813	Error			*208.092	*28.639	0.2367	0.1945	82.175%
G1	S6	Std S6			0.3497	Error	100	*41.822	*130.163	0.5442	0.1712	31.462%	
G2	S7	Std S7			0.3864	OK	50	*221.071	*120.837	0.2218	0.0979	44.119%	
G3	S8	Std S8			1.1641	Error	25	*27.319	*110.075	0.7692	0.2746	35.698%	
G4	P2	Positive control P2			0.0711	Error			*414.940	*448.458	0.0841	0.0187	22.285%
G5	N1	Negative control N1			0.0939	OK			*347.231	*392.757	0.1180	0.1158	98.199%
G6	N2	Negative control N2			0.0730	Error			*208.092	*443.145	0.2367	0.1945	82.175%
G7	S9	Std S9			0.6089	OK	100	*35.464	*19.387	0.5618	0.0723	12.868%	
G8	S10	Std S10			0.2580	Error	50	*31.775	*190.906	0.5723	0.2026	35.395%	
G9	S11	Std S11			0.4911	Error	25	*82.919	*62.318	0.4430	0.2353	53.110%	
G10	P2	Positive control P2			0.0716	Error			*414.940	*447.058	0.0841	0.0187	22.285%

Results													
Cell	Type	Sample Name	A/M	Group	OD 620 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
G11	N1	Negative control N1			0.1037	OK			*347.231	*372.932	0.1180	0.1158	98.199%
G12	N2	Negative control N2			0.2537	Error			*208.092	*194.231	0.2367	0.1945	82.175%
H1	S6	Std S6			0.4847	Error		100	*41.822	*64.955	0.5442	0.1712	31.462%
H2	S7	Std S7			0.1374	OK		50	*221.071	*316.783	0.2218	0.0979	44.119%
H3	S8	Std S8			0.5537	Error		25	*-27.319	*38.353	0.7692	0.2746	35.698%
H4	P2	Positive control P2			0.0820	Error			*414.940	*419.940	0.0841	0.0187	22.285%
H5	N1	Negative control N1			0.0751	OK			*347.231	*437.487	0.1180	0.1158	98.199%
H6	N2	Negative control N2			0.0538	Error			*208.092	*504.006	0.2367	0.1945	82.175%
H7	S9	Std S9			0.6476	OK		100	*35.464	*7.052	0.5618	0.0723	12.868%
H8	S10	Std S10			0.6640	Error		50	*31.775	*2.079	0.5723	0.2026	35.395%
H9	S11	Std S11			0.1692	Error		25	*82.919	*275.242	0.4430	0.2353	53.110%
H10	P2	Positive control P2			0.0735	Error			*414.940	*441.620	0.0841	0.0187	22.285%
H11	N1	Negative control N1			0.0893	OK			*347.231	*402.942	0.1180	0.1158	98.199%
H12	N2	Negative control N2			0.3285	Error			*208.092	*142.660	0.2367	0.1945	82.175%

Assay Info



Variables and formulas		
Variable	Description	Formula
[P1_0]	K (Positive control)	Average[P1_0]
[P2_0]	K (Positive control)	Average[P2_0]
[N1_0]	K (Negative control)	Average[N1_0]
[N2_0]	K (Negative control)	Average[N2_0]
[T_0]	OD Sample	Average[T_0]
[S0]	Standard	Average[S0]
[S1]	Standard	Average[S1]
[S2]	Standard	Average[S2]
[S3]	Standard	Average[S3]
[S4]	Standard	Average[S4]
[S5]	Standard	Average[S5]
[S6]	Standard	Average[S6]
[S7]	Standard	Average[S7]
[S8]	Standard	Average[S8]
[S9]	Standard	Average[S9]
[S10]	Standard	Average[S10]
[S11]	Standard	Average[S11]
[B]	Background	Average[B]
[O]	Calc. concentration	Auto
[C]	Critical OD	[N1]+0.1
[F]	Coefficient of positivity	[T_0]/[C]

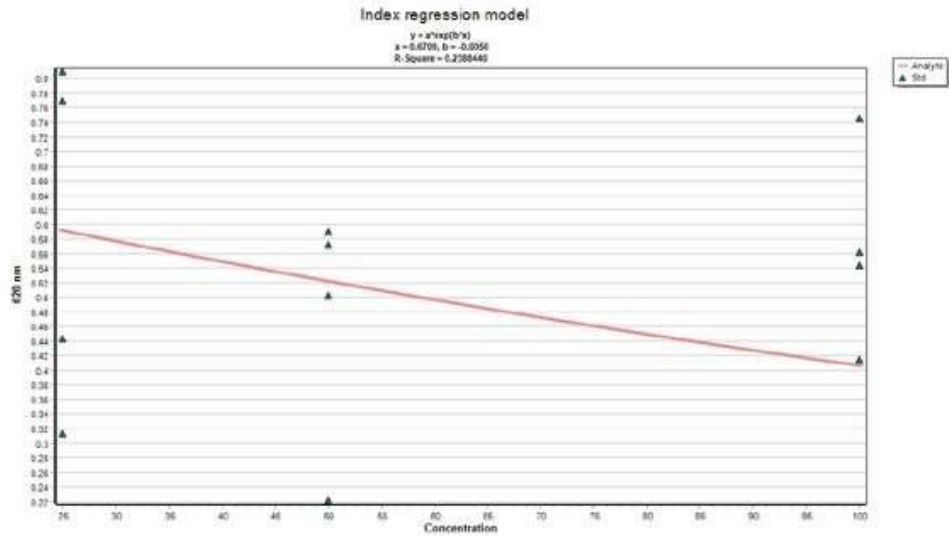
Result interpretation					
For variable	Conditional	Result 1 True	Result 1 False	Result 2 True	Result 2 False
[S0]	[S0]<[S1]	OK	Error		
[S1]	[S1]<[S2]	OK	Error		
[S2]	[S2]<[S3]	OK	Error		
[S3]	[S3]<[S4]	OK	Error		
[S4]	[S4]<[S5]	OK	Error		
[S5]	[S5]<[S6]	OK	Error		
[S6]	[S6]<[S7]	OK	Error		
[S7]	[S7]<[S8]	OK	Error		
[S8]	[S8]<[S9]	OK	Error		
[S9]	[S9]<[S10]	OK	Error		
[S10]	[S10]<[S11]	OK	Error		
[S11]	[S10]<[S11]	OK	Error		
[T]	((SMin)<[T])&&([T]<[SMax])	Intrapolated	Extrapolated		
[P1]	[P1]>1	OK	Error		
[P2]	[P2]>1	OK	Error		

Result interpretation					
For variable	Conditional	Result 1 True	Result 1 False	Result 2 True	Result 2 False
[N1]	[N1]<0.2	OK	Error		
[N2]	[N2]<0.2	OK	Error		

Variable Calculations

Variables
0
[P1_0]=0.096
[P2_0]=0.084
[N1_0]=0.118
[N2_0]=0.237
[S0]=0.415
[S1]=0.503
[S2]=0.810
[S3]=0.745
[S4]=0.590
[S5]=0.313
[S6]=0.544
[S7]=0.222
[S8]=0.769
[S9]=0.562
[S10]=0.572
[S11]=0.443
[B]=Undefined
[C]=0.218
[L0]=0.177
[SMin]=0.415
[SMax]=0.443
[S0_Conc]=96.110
[S1_Conc]=57.598
[S2_Conc]=-37.541
[S3_Conc]=-21.044
[S4_Conc]=25.553
[S5_Conc]=152.012
[S6_Conc]=41.822
[S7_Conc]=221.071
[S8_Conc]=-27.319
[S9_Conc]=35.464
[S10_Conc]=31.775
[S11_Conc]=82.919
[SMin_Conc]=96.110
[SMax_Conc]=82.919
[P1_0_Conc]=388.189
[P2_0_Conc]=414.940
[N1_0_Conc]=347.231
[N2_0_Conc]=208.092

Curve Fitting



Standards	Given Concentration	Calculated Concentration	OD 620 nm	Residuals	%Recovery	Sample Name	Cell
S0	100	*154.278	0.3099	54.278	154.278%	Std S0	A1
S1	50	*42.964	0.5411	-7.036	85.928%	Std S1	A2
S2	25	*45.423	0.8422	-70.423	-181.691%	Std S2	A3
S3	100	*37.921	0.8112	-137.921	-37.921%	Std S3	A7
S4	50	*86.139	1.0326	-136.139	-172.277%	Std S4	A8
S5	25	*210.244	0.2342	185.244	840.977%	Std S5	A9
S0	100	*103.992	0.3986	3.992	103.992%	Std S0	B1
S1	50	*35.519	0.5616	-14.481	71.038%	Std S1	B2
S2	25	*70.080	0.9529	-95.080	-280.320%	Std S2	B3
S3	100	*43.497	0.5396	-56.503	43.497%	Std S3	B7
S4	50	*42.808	0.8313	-92.808	-85.617%	Std S4	B8
S5	25	*171.924	0.2837	146.924	687.695%	Std S5	B9
S0	100	*65.526	0.4833	-34.474	65.526%	Std S0	C1
S1	50	*12.140	0.7130	-62.140	-24.279%	Std S1	C2
S2	25	*2.040	0.6778	-27.040	-8.159%	Std S2	C3
S3	100	*36.711	0.8063	-136.711	-36.711%	Std S3	C7
S4	50	*159.074	0.3026	109.074	318.149%	Std S4	C8

Standards	Given Concentration	Calculated Concentration	OD 620 nm	Residuals	%Recovery	Sample Name	Cell
S5	25	*128.955	0.3518	103.955	515.819%	Std S5	C9
S0	100	*72.427	0.4669	-27.573	72.427%	Std S0	D1
S1	50	*246.038	0.1958	196.038	492.075%	Std S1	D2
S2	25	*-26.384	0.7656	-51.384	-105.535%	Std S2	D3
S3	100	*-41.231	0.8247	-141.231	-41.231%	Std S3	D7
S4	50	*246.852	0.1950	196.852	493.705%	Std S4	D8
S5	25	*111.410	0.3841	86.410	445.639%	Std S5	D9
S6	100	*-39.812	0.8189	-139.812	-39.812%	Std S6	E1
S7	50	*191.757	0.2569	141.757	383.514%	Std S7	E2
S8	25	*-54.998	0.8836	-79.998	-219.992%	Std S8	E3
S9	100	*75.345	0.4601	-24.655	75.345%	Std S9	E7
S10	50	*37.294	0.5567	-12.706	74.588%	Std S10	E8
S11	25	*-35.004	0.7994	-60.004	-140.016%	Std S11	E9
S6	100	*49.570	0.5235	-50.430	49.570%	Std S6	F1
S7	50	*333.019	0.1267	283.019	666.038%	Std S7	F2
S8	25	*68.727	0.4756	43.727	274.907%	Std S8	F3
S9	100	*46.908	0.5305	-53.092	46.908%	Std S9	F7
S10	50	*-37.726	0.8104	-87.726	-75.451%	Std S10	F8
S11	25	*152.757	0.3123	127.757	611.028%	Std S11	F9
S6	100	*130.163	0.3497	30.163	130.163%	Std S6	G1
S7	50	*120.837	0.3664	70.837	241.674%	Std S7	G2
S8	25	*-110.075	1.1641	-135.075	-440.300%	Std S8	G3
S9	100	*19.387	0.6089	-80.613	19.387%	Std S9	G7
S10	50	*190.906	0.2580	140.906	381.811%	Std S10	G8
S11	25	*62.318	0.4911	37.318	249.272%	Std S11	G9
S6	100	*64.955	0.4847	-35.045	64.955%	Std S6	H1
S7	50	*316.783	0.1374	266.783	633.565%	Std S7	H2
S8	25	*38.353	0.5537	13.353	153.413%	Std S8	H3
S9	100	*7.052	0.6476	-92.948	7.052%	Std S9	H7
S10	50	*2.079	0.6640	-47.921	4.157%	Std S10	H8
S11	25	*275.242	0.1692	250.242	1100.966%	Std S11	H9

Results													
Cell	Type	Sample Name	A/M	Group	OD 620 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
A1	S0	Std S0			0.8180	Error		1	*-1.000	*-1.000	1.0009	0.1129	11.275%
A2	S0	Std S0			1.1687	Error		1	*-1.000	*-1.000	1.0009	0.1129	11.275%
A3	S0	Std S0			1.0496	Error		1	*-1.000	*-1.000	1.0009	0.1129	11.275%
A4	S0	Std S0			0.8602	Error		1	*-1.000	*-1.000	1.0009	0.1129	11.275%
A5	S0	Std S0			1.0662	Error		1	*-1.000	*-1.000	1.0009	0.1129	11.275%
B1	S0	Std S0			0.9477	Error		1	*-1.000	*-1.000	1.0009	0.1129	11.275%
B2	S0	Std S0			1.0579	Error		1	*-1.000	*-1.000	1.0009	0.1129	11.275%
B3	S0	Std S0			0.8789	Error		1	*-1.000	*-1.000	1.0009	0.1129	11.275%
B4	S0	Std S0			1.0285	Error		1	*-1.000	*-1.000	1.0009	0.1129	11.275%
B5	S0	Std S0			1.1337	Error		1	*-1.000	*-1.000	1.0009	0.1129	11.275%
C7	S1	Std S1			0.0454	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
C8	S1	Std S1			1.1777	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
C9	S1	Std S1			0.8376	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
C10	S1	Std S1			0.9624	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
C11	S1	Std S1			0.8825	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
C12	S1	Std S1			0.9239	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
D7	S1	Std S1			0.0400	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
D8	S1	Std S1			1.0483	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
D9	S1	Std S1			0.9583	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
D10	S1	Std S1			0.9680	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
D11	S1	Std S1			1.0286	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
D12	S1	Std S1			0.7886	OK		2	*-1.000	*-1.000	0.8049	0.3543	44.012%
E1	S2	Std S2			0.7302	OK		3	*-1.000	*-1.000	0.9350	0.2169	23.202%
E2	S2	Std S2			1.0528	OK		3	*-1.000	*-1.000	0.9350	0.2169	23.202%
E3	S2	Std S2			1.1608	OK		3	*-1.000	*-1.000	0.9350	0.2169	23.202%
E4	S2	Std S2			1.1839	OK		3	*-1.000	*-1.000	0.9350	0.2169	23.202%
E5	S2	Std S2			1.0285	OK		3	*-1.000	*-1.000	0.9350	0.2169	23.202%

Results													
Cell	Type	Sample Name	A/M	Group	OD 620 nm	Result 1	Result 2	Given Concentration	Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)	Coefficient of Variation (OD)
F1	S2	Std S2			0.5329	OK		3	*-1.000	*-1.000	0.9350	0.2169	23.202%
F2	S2	Std S2			0.9418	OK		3	*-1.000	*-1.000	0.9350	0.2169	23.202%
F3	S2	Std S2			1.0045	OK		3	*-1.000	*-1.000	0.9350	0.2169	23.202%
F4	S2	Std S2			0.6180	OK		3	*-1.000	*-1.000	0.9350	0.2169	23.202%
F5	S2	Std S2			1.0964	OK		3	*-1.000	*-1.000	0.9350	0.2169	23.202%
G7	S3	Std S3			0.0501	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
G8	S3	Std S3			1.5822	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
G9	S3	Std S3			1.2189	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
G10	S3	Std S3			1.0408	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
G11	S3	Std S3			0.8429	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
G12	S3	Std S3			0.9147	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
H7	S3	Std S3			0.0402	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
H8	S3	Std S3			1.2539	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
H9	S3	Std S3			1.5337	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
H10	S3	Std S3			1.1232	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
H11	S3	Std S3			1.0229	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%
H12	S3	Std S3			0.8219	OK		4	*-1.000	*-1.000	0.9538	0.4668	48.945%

Assay Info



Variables and formulas		
Variable	Description	Formula
[P1_0]	K (Positive control)	Average[P1_0]
[N1_0]	K (Negative control)	Average[N1_0]
[T_0]	OD Sample	Average[T_0]
[S0]	Standard	Average[S0]
[S1]	Standard	Average[S1]
[S2]	Standard	Average[S2]
[S3]	Standard	Average[S3]
[B]	Background	Average[B]
[O]	Calc. concentration	Auto
[C]	Critical OD	[N1]+0.1
[F]	Coefficient of positivity	[T_0]/[C]

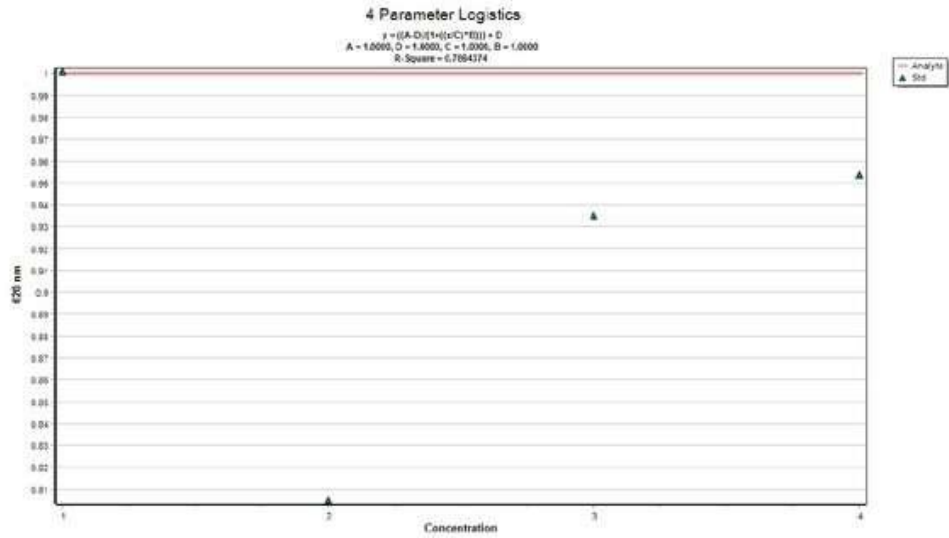
Result interpretation					
For variable	Conditional	Result 1 True	Result 1 False	Result 2 True	Result 2 False
[S0]	[S0]<[S1]	OK	Error		
[S1]	[S1]<[S2]	OK	Error		
[S2]	[S2]<[S3]	OK	Error		
[S3]	[S2]<[S3]	OK	Error		
[T]	((SMin)<[T])&&([T]<[SMax])	Intrapolated	Extrapolated		
[P1]	[P1]>1	OK	Error		
[N1]	[N1]<0.2	OK	Error		

Variable Calculations



Variables
0
[P1_0]=Undefined
[N1_0]=Undefined
[S0]=1.001
[S1]=0.805
[S2]=0.935
[S3]=0.954
[B]=Undefined
[C]=Undefined
[L0]=Undefined
[SMin]=1.001
[SMax]=0.954
[S0_Conc]=-1.000
[S1_Conc]=-1.000
[S2_Conc]=-1.000
[S3_Conc]=-1.000
[SMin_Conc]=-1.000
[SMax_Conc]=-1.000

Curve Fitting



Standards	Given Concentration	Calculated Concentration	OD 620 nm	Residuals	%Recovery	Sample Name	Cell
S0	1	*-1.000	0.8180	-2.000	-100.000%	Std S0	A1
S0	1	*-1.000	1.1687	-2.000	-100.000%	Std S0	A2
S0	1	*-1.000	1.0496	-2.000	-100.000%	Std S0	A3
S0	1	*-1.000	0.8602	-2.000	-100.000%	Std S0	A4
S0	1	*-1.000	1.0662	-2.000	-100.000%	Std S0	A5
S0	1	*-1.000	0.9477	-2.000	-100.000%	Std S0	B1
S0	1	*-1.000	1.0579	-2.000	-100.000%	Std S0	B2
S0	1	*-1.000	0.8789	-2.000	-100.000%	Std S0	B3
S0	1	*-1.000	1.0285	-2.000	-100.000%	Std S0	B4
S0	1	*-1.000	1.1337	-2.000	-100.000%	Std S0	B5
S1	2	*-1.000	0.0454	-3.000	-50.000%	Std S1	C7
S1	2	*-1.000	1.1777	-3.000	-50.000%	Std S1	C8
S1	2	*-1.000	0.8376	-3.000	-50.000%	Std S1	C9
S1	2	-1.000	0.9624	-3.000	-50.000%	Std S1	C10
S1	2	*-1.000	0.8825	-3.000	-50.000%	Std S1	C11
S1	2	*-1.000	0.9239	-3.000	-50.000%	Std S1	C12
S1	2	*-1.000	0.0400	-3.000	-50.000%	Std S1	D7

Standards	Given Concentration	Calculated Concentration	OD 620 nm	Residuals	%Recovery	Sample Name	Cell
S1	2	*-1.000	1.0483	-3.000	-50.000%	Std S1	D8
S1	2	-1.000	0.9583	-3.000	-50.000%	Std S1	D9
S1	2	-1.000	0.9660	-3.000	-50.000%	Std S1	D10
S1	2	*-1.000	1.0286	-3.000	-50.000%	Std S1	D11
S1	2	*-1.000	0.7886	-3.000	-50.000%	Std S1	D12
S2	3	*-1.000	0.7302	-4.000	-33.333%	Std S2	E1
S2	3	*-1.000	1.0528	-4.000	-33.333%	Std S2	E2
S2	3	*-1.000	1.1608	-4.000	-33.333%	Std S2	E3
S2	3	*-1.000	1.1839	-4.000	-33.333%	Std S2	E4
S2	3	*-1.000	1.0285	-4.000	-33.333%	Std S2	E5
S2	3	*-1.000	0.5329	-4.000	-33.333%	Std S2	F1
S2	3	*-1.000	0.9418	-4.000	-33.333%	Std S2	F2
S2	3	*-1.000	1.0045	-4.000	-33.333%	Std S2	F3
S2	3	*-1.000	0.6180	-4.000	-33.333%	Std S2	F4
S2	3	*-1.000	1.0964	-4.000	-33.333%	Std S2	F5
S3	4	*-1.000	0.0501	-5.000	-25.000%	Std S3	G7
S3	4	*-1.000	1.5822	-5.000	-25.000%	Std S3	G8
S3	4	*-1.000	1.2189	-5.000	-25.000%	Std S3	G9
S3	4	*-1.000	1.0408	-5.000	-25.000%	Std S3	G10
S3	4	*-1.000	0.8429	-5.000	-25.000%	Std S3	G11
S3	4	*-1.000	0.9147	-5.000	-25.000%	Std S3	G12
S3	4	*-1.000	0.0402	-5.000	-25.000%	Std S3	H7
S3	4	*-1.000	1.2539	-5.000	-25.000%	Std S3	H8
S3	4	*-1.000	1.5337	-5.000	-25.000%	Std S3	H9
S3	4	*-1.000	1.1232	-5.000	-25.000%	Std S3	H10
S3	4	*-1.000	1.0229	-5.000	-25.000%	Std S3	H11
S3	4	*-1.000	0.8219	-5.000	-25.000%	Std S3	H12

Lampiran 6

HASIL PENGOLAHAN DATA SPSS

Pseudomonas aeruginosa

		Tests of Normality					
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Kelompok	Statistic	df	Sig.	Statistic	df	Sig.
	Perlakuan						
Nilai OD	Fraksi 100%	.180	3	.	.999	3	.946
	Fraksi 50%	.269	3	.	.949	3	.566
	Fraksi 25%	.207	3	.	.992	3	.831
	Kontrol Positif	.332	3	.	.863	3	.277
	Kontrol Negatif	.286	3	.	.931	3	.492

a. Lilliefors Significance Correction

Descriptives

Nilai OD

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Fraksi 100%	3	.19043 3	.03596 42	.02076 39	.10109 3	.27977 3	.1539	.2258
Fraksi 50%	3	.25033 3	.02945 80	.01700 76	.17715 6	.32351 1	.2178	.2752
Fraksi 25%	3	.32306 7	.10546 30	.06088 91	.06108 2	.58505 1	.2234	.4335
Kontrol Positif	3	.08783 3	.01140 72	.00658 59	.05949 6	.11617 0	.0748	.0960
Kontrol Negatif	3	1.1470 33	.04534 54	.02618 02	1.0343 89	1.2596 77	1.0964	1.1839
Total	15	.39974 0	.39768 71	.10268 24	.17950 8	.61997 2	.0748	1.1839

Test of Homogeneity of Variances

		Levene	df1	df2	Sig.
		Statistic			
Nilai OD	Based on Mean	2.336	4	10	.126
	Based on Median	1.443	4	10	.290
	Based on Median and with adjusted df	1.443	4	4.141	.362
	Based on trimmed mean	2.278	4	10	.133

ANOVA

Nilai OD

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.183	4	.546	176.409	.000
Within Groups	.031	10	.003		
Total	2.214	14			

Multiple Comparisons

Dependent Variable: Nilai OD

	(I) Kelompo k	(J) Kelompo k	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tuke y HSD	Fraksi 100%	Fraksi 50%	-.0599000	.0454165	.687	-.209370	.089570
		Fraksi 25%	-.1326333	.0454165	.089	-.282103	.016836
		Kontrol Positif	.1026000	.0454165	.235	-.046870	.252070
		Kontrol Negatif	-.9566000*	.0454165	.000	1.106070	.807130
		Fraksi 50%	Fraksi 100%	.0599000	.0454165	.687	-.089570

	Fraksi 25%	-.0727333	.0454165	.528	-	.076736
	Kontrol Positif	.1625000*	.0454165	.032	.013030	.311970
	Kontrol Negatif	-.8967000*	.0454165	.000	1.046170	.747230
Fraksi 25%	Fraksi 100%	.1326333	.0454165	.089	-	.282103
	Fraksi 50%	.0727333	.0454165	.528	.016836	.222203
	Kontrol Positif	.2352333*	.0454165	.003	.085764	.384703
	Kontrol Negatif	-.8239667*	.0454165	.000	.973436	.674497
Kontrol Positif	Fraksi 100%	-.1026000	.0454165	.235	-	.046870
	Fraksi 50%	-.1625000*	.0454165	.032	.311970	.013030
	Fraksi 25%	-.2352333*	.0454165	.003	.384703	.085764
	Kontrol Negatif	1.0592000*	.0454165	.000	1.208670	.909730
Kontrol Negatif	Fraksi 100%	.9566000*	.0454165	.000	.807130	1.106070
	Fraksi 50%	.8967000*	.0454165	.000	.747230	1.046170
	Fraksi 25%	.8239667*	.0454165	.000	.674497	.973436
	Kontrol Positif	1.0592000*	.0454165	.000	.909730	1.208670

*. The mean difference is significant at the 0.05 level.

Escherichia coli

Tests of Normality

Kelompok Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.

Nilai	Fraksi 100%	,234	3	.	,978	3	,718
OD	Fraksi 50%	,198	3	.	,995	3	,868
	Fraksi 25%	,325	3	.	,875	3	,311
	Kontrol Positif	,335	3	.	,857	3	,260
	Kontrol Negatif	,335	3	.	,858	3	,262

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Nilai	Based on Mean	10,576	4	10	,001
OD	Based on Median	1,289	4	10	,338
	Based on Median and with adjusted df	1,289	4	2,152	,472
	Based on trimmed mean	9,054	4	10	,002

ANOVA

Nilai OD

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3,624	4	,906	136,842	,000
Within Groups	,066	10	,007		
Total	3,690	14			

Kruskal Wallis

Ranks

	Kelompok Perlakuan	N	Mean Rank
Nilai	Fraksi 100%	3	2,00
OD	Fraksi 50%	3	5,00
	Total	6	

Test Statistics^{a,b}

Nilai OD	
Kruskal-Wallis	3,857
H	
Df	1
Asymp. Sig.	,050

- a. Kruskal Wallis Test
- b. Grouping Variable:
Kelompok Perlakuan

MANN WHITNEY

Kelompok 1 ke 2

		Ranks		
	Kelompok Perlakuan	N	Mean Rank	Sum of Ranks
Nilai	Fraksi 100%	3	2,00	6,00
OD	Fraksi 50%	3	5,00	15,00
	Total	6		

Test Statistics^a

	Nilai OD
Mann-Whitney U	,000
Wilcoxon W	6,000
Z	-1,964
Asymp. Sig. (2-tailed)	,050
Exact Sig. [2*(1-tailed Sig.)]	,100 ^b

- a. Grouping Variable:
Kelompok Perlakuan
- b. Not corrected for ties.

Kelompok 1 ke 3

		Ranks		
	Kelompok Perlakuan	N	Mean Rank	Sum of Ranks
Nilai	Fraksi 100%	3	2,00	6,00
OD	Fraksi 25%	3	5,00	15,00
	Total	6		

Test Statistics^a

	Nilai OD
Mann-Whitney U	,000

Wilcoxon W	6,000
Z	-1,964
Asymp. Sig. (2-tailed)	,050
Exact Sig. [2*(1-tailed Sig.)]	,100 ^b

a. Grouping Variable:

Kelompok Perlakuan

b. Not corrected for ties.

Kelompok 1 ke 4

		Ranks		
	Kelompok Perlakuan	N	Mean Rank	Sum of Ranks
Nilai	Fraksi 100%	3	5,00	15,00
OD	Kontrol Positif	3	2,00	6,00
	Total	6		

Test Statistics^a

		Nilai OD
Mann-Whitney U		,000
Wilcoxon W		6,000
Z		-1,964
Asymp. Sig. (2-tailed)		,050
Exact Sig. [2*(1-tailed Sig.)]		,100 ^b

a. Grouping Variable:

Kelompok Perlakuan

b. Not corrected for ties.

Kelompok 1 ke 5

		Ranks		
	Kelompok Perlakuan	N	Mean Rank	Sum of Ranks
Nilai	Fraksi 100%	3	2,00	6,00
OD	Kontrol Negatif	3	5,00	15,00
	Total	6		

Test Statistics^a

		Nilai OD
--	--	----------

Mann-Whitney U	,000
Wilcoxon W	6,000
Z	-1,964
Asymp. Sig. (2-tailed)	,050
Exact Sig. [2*(1-tailed Sig.)]	,100 ^b

- a. Grouping Variable:
Kelompok Perlakuan
- b. Not corrected for ties.

Kelompok 2 ke 3

		Ranks		
	Kelompok Perlakuan	N	Mean Rank	Sum of Ranks
Nilai	Fraksi 50%	3	2,00	6,00
OD	Fraksi 25%	3	5,00	15,00
	Total	6		

Test Statistics^a

		Nilai OD
Mann-Whitney U		,000
Wilcoxon W		6,000
Z		-1,964
Asymp. Sig. (2-tailed)		,050
Exact Sig. [2*(1-tailed Sig.)]		,100 ^b

- a. Grouping Variable:
Kelompok Perlakuan
- b. Not corrected for ties.

Kelompok 2 ke 4

		Ranks		
	Kelompok Perlakuan	N	Mean Rank	Sum of Ranks
Nilai	Fraksi 50%	3	5,00	15,00
OD	Kontrol Positif	3	2,00	6,00

Total	6		
-------	---	--	--

Test Statistics^a

	Nilai OD
Mann-Whitney U	,000
Wilcoxon W	6,000
Z	-1,964
Asymp. Sig. (2-tailed)	,050
Exact Sig. [2*(1-tailed Sig.)]	,100 ^b

a. Grouping Variable:

Kelompok Perlakuan

b. Not corrected for ties.

Kelompok 2 ke 5

Ranks

	Kelompok Perlakuan	N	Mean Rank	Sum of Ranks
Nilai OD	Fraksi 50%	3	2,00	6,00
	Kontrol Negatif	3	5,00	15,00
	Total	6		

Test Statistics^a

	Nilai OD
Mann-Whitney U	,000
Wilcoxon W	6,000
Z	-1,964
Asymp. Sig. (2-tailed)	,050
Exact Sig. [2*(1-tailed Sig.)]	,100 ^b

a. Grouping Variable:

Kelompok Perlakuan

b. Not corrected for ties.

Kelompok 3 ke 4

Ranks

	Kelompok Perlakuan	N	Mean Rank	Sum of Ranks
	Fraksi 25%	3	5,00	15,00

Nilai	Kontrol Positif	3	2,00	6,00
OD	Total	6		

Test Statistics^a

	Nilai OD
Mann-Whitney U	,000
Wilcoxon W	6,000
Z	-1,964
Asymp. Sig. (2-tailed)	,050
Exact Sig. [2*(1-tailed Sig.)]	,100 ^b

a. Grouping Variable:

Kelompok Perlakuan

b. Not corrected for ties.

Kelompok 3 ke 5

		Ranks		
	Kelompok Perlakuan	N	Mean Rank	Sum of Ranks
Nilai	Fraksi 25%	3	2,00	6,00
OD	Kontrol Negatif	3	5,00	15,00
	Total	6		

Test Statistics^a

	Nilai OD
Mann-Whitney U	,000
Wilcoxon W	6,000
Z	-1,964
Asymp. Sig. (2-tailed)	,050
Exact Sig. [2*(1-tailed Sig.)]	,100 ^b

a. Grouping Variable:

Kelompok Perlakuan

b. Not corrected for ties.

Kelompok 4 ke 5

		Ranks		
	Kelompok Perlakuan	N	Mean Rank	Sum of Ranks

Nilai	Kontrol Positif	3	2,00	6,00
OD	Kontrol Negatif	3	5,00	15,00
	Total	6		

Test Statistics^a

	Nilai OD
Mann-Whitney U	,000
Wilcoxon W	6,000
Z	-1,964
Asymp. Sig. (2-tailed)	,050
Exact Sig. [2*(1-tailed Sig.)]	,100 ^b

a. Grouping Variable:

Kelompok Perlakuan

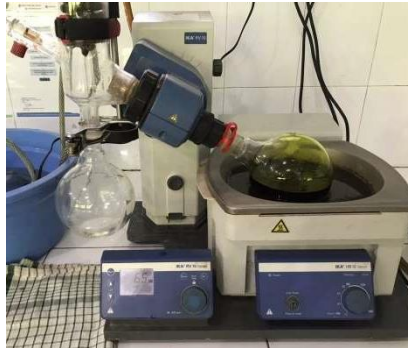
b. Not corrected for ties.

Lampiran 3

Dokumentasi



Pengumpulan Sampel Daun Bopot



Proses Rotary Evaporator



Proses Waterbath untuk menguapkan sample



Penimbangan sampel yang diperoleh



Penimbangan sampel yang akan di encerkan Bersama N-Heksan



Proses pengenceran sampel yang akan dilakukan sebanyak 3 kali pengulangan



Banyak sampel yang diperoleh selama pengenceran



Penguapan kembali sampel



Proses pembuatan media agar darah untuk pertumbuhan bakteri



Persiapan sterilisasi alat dan bahan



Proses sterilisasi alat dan bahan yang akan digunakan selama penelitian



Proses kultur bakteri



Proses kultur bakteri



Proses kultur bakteri



Proses kultur bakteri



Penyimpanan bakteri dalam inkubasi dan didiamkan selama 24 jam untuk melihat apakah ada bakteri yang tumbuh



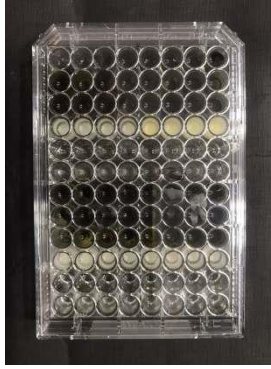
Bakteri yang sudah tumbuh dalam media agar darah



Bakteri yang sudah di pindahkan ke dalam media BHI



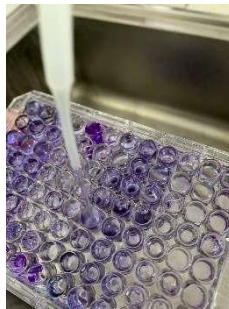
Pengujian Biofilm Bakteri pada Microplate



Pengujian Biofilm Sampel ekstrak dengan konsentrasi 100%, 50%, 25%, control positif, control media dan control negative



Penyimpanan sampel biofilm pada inkubator yang telah di masukan pada microplate dan di diamkan selama 24 jam



Proses pencucian microplate



Proses pembacaan hasil dengan microplate reader

Lampiran 4

Lembar Konsultasi



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Program Studi
Farmasi

Telp. 0541-748511 Fax.0541-766832

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email: farmasi@umkt.ac.id



LEMBAR KONSULTASI SKRIPSI

Nama : Maharani Prima Ardelia

NIM : 1911102415130

Pembimbing : Chaerul Fadly Mochtar Luthfi M,S. Farm.,M. Biomed

Judul Penelitian : **AKTIVITAS FRAKSI N-HEKSAN DARI DAUN BOPOT (*Tabernaemontana divaricata R.Br*) TERHADAP PENGHAMBATAN MONOMIKROBA BIOFILM *Pseudomonas aeruginosa* dan *Escherichia coli***

No.	Tanggal	Materi Bimbingan	Arahan/Masukan	Bukti Konsultasi
1	28 September 2022	Pengarahan dalam pemilihan judul dan menyusun skripsi	Mendownload microsoft team sebagai sarana dalam pengerjaan proposal skripsi	
2	25 Oktober 2022	Penentuan judul	Dikerjakan sesuai dengan KDM	
3	14 desember 2022	Revisi bab 1 dan bab II proposal	Memperbaiki latar belakang dan kerangka teori	
4	20 desember 2022	Revisi bab 3 proposal	Metode penelitian diperbaiki	
5.	20 januari 2023	Konsul proposal	Diarahkan untuk maju seminar proposal	
6	1 maret 2023	Pembuatan Ekstrak	Diarahkan agak mendapatkan ekstrak yang lebih kental	
7	20 maret 2023	Pembuatan fraksinasi	Melakukan fraksinasi N-Heksan	
8	15 Juni 2023	Uji Penelitian dan analisis data	Melakukan analisis data menggunakan SPSS	
9	25 Juni 2023	Analisis Data	Menggunakan metode Anova	
10	30 juni 2023	Analisis Data dan Pembahasan	Pembahasan masih kurang lengkap dan perlu ditambahkan	
11	3 Juli 2023	Revisi Skripsi	Melakukan perbaikan	
12	5 Juli 2023	Revisi Skripsi	Melakukan perbaikan	
13	10 Juli 2023	Konsul Skripsi	Diarahkan untuk maju seminar hasil dan belajar agar dapat menguasai materi	

Lampiran 5

Hasil Plagiasi

SK 1 : Maharani Prima Ardelia

by Universitas Muhammadiyah Kalimantan Timur

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