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LAMPIRAN

Lampiran 1. Etik penelitian

YAYASAN HARAPAN BUNDA BATAM
INSTITUT KESEHATAN MITRA BUNDA
KOMITE ETIK PENELITIAN
Jl. Seraya No 1 KOTA BATAM Telp/Fax (0778) 429431, website : http:\\ikmb.ac.id
SURAT KEPUTUSAN MENTERI PENDIDIKAN DAN KEBUDAYAAN REPUBLIK INDONESIA No. 284/M/2020

KOMITE ETIK PENELITIAN
INSTITUT KESEHATAN MITRA BUNDA
THE RESEARCH ETHICAL COMMITTEE INSTITUT KESEHATAN MITRA BUNDA

SURAT KETERANGAN
ETHICAL APPROVAL
No. 108/K/KEP/IKMB/VI/2026

Komite Etik Penelitian Institut Kesehatan Mitra Bunda, menyatakan dengan ini bahwa penelitian dengan judul :
The Research Ethical Committee of Institut Kesehatan Mitra Bunda states hereby that the following proposal :

"Perbandingan Aktivitas Antioksidan pada Gel *Aloe vera* dan Produk Gel *Anti-acne* Menggunakan Spektrofotometri UV-Vis"
"Comparison of Antioxidant Activity in Aloe Vera Gel and Anti-Acne Gel Products Using UV-Vis Spectrophotometry"

Peneliti Utama *Principal Investigato*	: Fina Dwipayenti
Lokasi Penelitian *Research Location*	: Laboratorium Kimia Farmasi Institut Kesehatan Mitra Bunda
Waktu Penelitian *Time Schedule*	: Mei - Juli 2026
Responden/Subjek Penelitian *Respondent/Research Subject*	: 6 sampel

Telah melalui prosedur kaji etik dan dinyatakan layak untuk dilaksanakan
Has proceeded the ethichal assessment procedure and been approved fot implementation

Batam, 8 Juni 2026
Ketua / *Chairman,*

dr. Ibnu Rushd, M.K.M

Lampiran 2. COA DPPH (*1,1–diphenyl-2-picylhydrazyl*)

Certificate of Analysis

06/30/2025(JST)

TOKYO CHEMICAL INDUSTRY CO.,LTD.
T-PLUS Nihonbashi-Kodemmacho
16-12 Nihonbashi-kodemmacho, Chuo-ku, Tokyo 103-0001, Japan

Chemical Name: 1,1-Diphenyl-2-picrylhydrazyl Free Radical		
Product Number: D4313 CAS RN: 1898-66-4	Lot: 32JHO	

Tests	Results	Specifications
Appearance	Black crystal	Black powder to crystal
Purity(HPLC)	99.0 area%	min. 97.0 area%
NMR	pass test	confirm to structure

TCI Lot numbers are 4-6 characters in length. Characters listed after the first 4-5 characters are control numbers for internal purpose only.
The contents of the specifications are subject to change without advance notice. The specification values displayed here are the most up to date values. There may be cases where the product labels display a different specification, however, the product quality still meets the latest specification.

Customer Service:
TOKYO CHEMICAL INDUSTRY CO., LTD
E-mail: globalbusiness@TCIchemicals.com

Takuya Nishioka
Quality Assurance Department Manager

Lampiran 3. Determinasi tanaman lidah buaya (*Aloe vera*)

HERBARIUM UNIVERSITAS ANDALAS (ANDA)
Departemen Biologi FMIPA Universitas Andalas Kampus Limau Manih Padang
Sumbar Indonesia 25163 Telp. +62-751-777427 e-mail: herbariumanda@yahoo.com

Nomor : 180/K-ID/ANDA/III/2026
Lampiran : -
Perihal : Hasil Identifikasi

Kepada yth,
apt. Rastria Meilanda, S.Farm, M.Sc
Di
Tempat

Dengan hormat,
Sehubungan dengan surat permohonan determinasi sampel dari Institut Kesehatan Mitra Bunda No. 035/K/S1-FARM/IKMB/I/2026 tanggal 25 Februari 2026 di Herbarium Universitas Andalas Departemen Biologi FMIPA Universitas Andalas, kami telah membantu mengidentifikasi tumbuhan yang dibawa, dari:

Nama : apt. Rastria Meilanda, S.Farm, M.Sc
Instansi : Institut Kesehatan Mitra Bunda

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

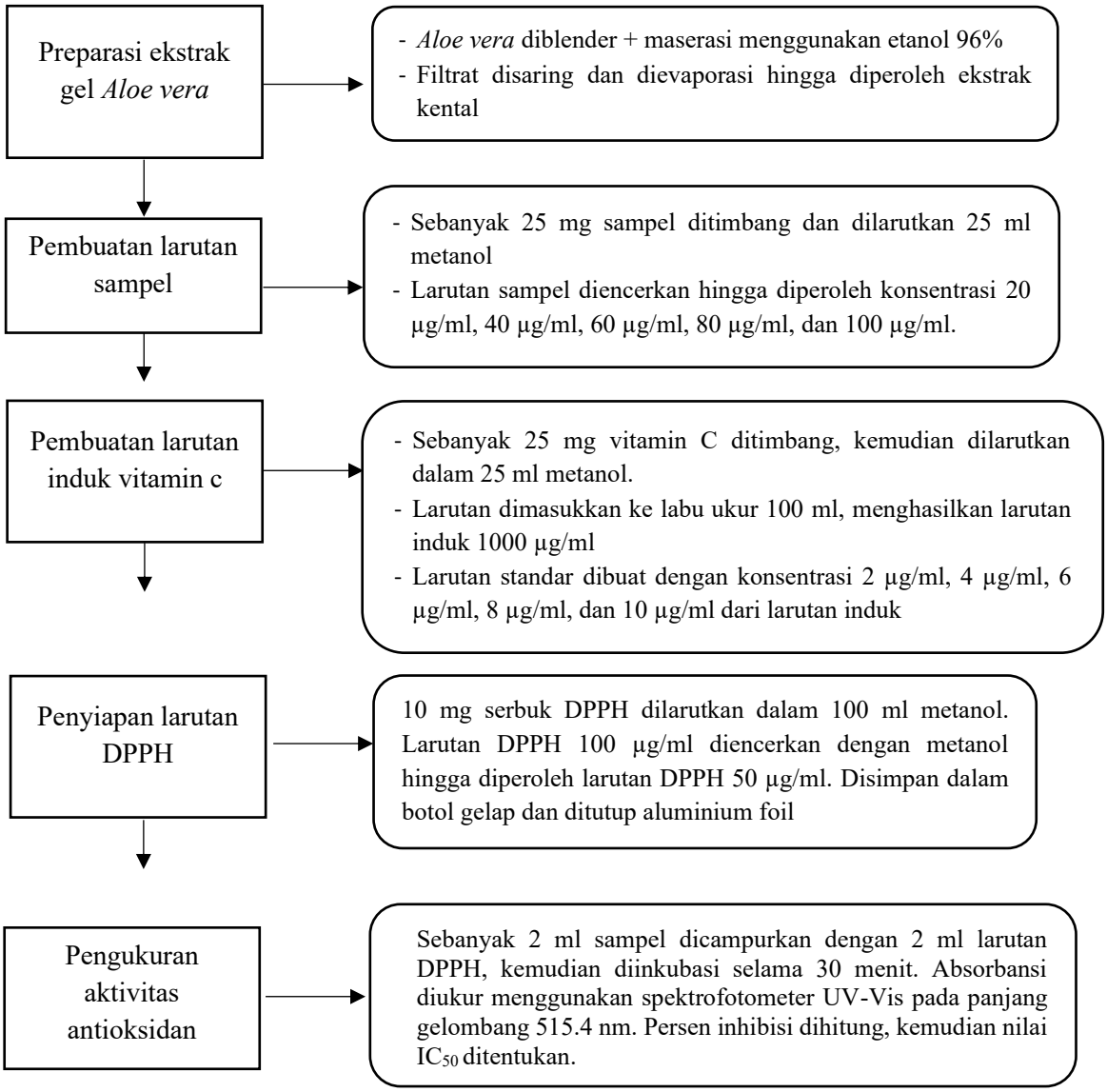
No	Family	Spesies	Nomor Koleksi
1.	Asphodelaceae	*Aloe vera* (L.) Burm.f.	IKMB. 22.87 Lidah Buaya

Demikian surat ini dibuat untuk dapat digunakan seperlunya.

Padang, 2 Maret 2026
Kepala,

Dr. Nurainas
NIP. 196908141995122001

Lampiran 4. Skema alur penelitian



Lampiran 5. Perhitungan Pembuatan larutan sampel

$V_1 \times C_1 = V_2 \times C_2$

Keterangan:

V_1 = volume stok yang diambil

C_1 = konsentrasi stok (1000 µg/ml)

V_2 = volume akhir (10 ml)

C_2 = konsentrasi yang diinginkan

- Konsentrasi 20 µg/ml = $V_1 \frac{C_2 \times V_2}{C_1} = \frac{20 \times 10}{1000} = 0{,}2\ ml$

  Volume metanol untuk mencapai 20 µg/ml = $V_{metanol}$ = 10 - 0,2 = 9,8 ml
- Konsentrasi 40 µg/ml = $V_1 \frac{C_2 \times V_2}{C_1} = \frac{40 \times 10}{1000} = 0{,}4\ ml$

  Volume metanol untuk mencapai 40 µg/ml = $V_{metanol}$ = 10 - 0,4 = 9,6 ml
- Konsentrasi 60 µg/ml = $V_1 \frac{C_2 \times V_2}{C_1} = \frac{60 \times 10}{1000} = 0{,}6\ ml$

  Volume metanol untuk mencapai 60 µg/ml = $V_{metanol}$ = 10 - 0,6 = 9,4 ml
- Konsentrasi 80 µg/ml = $V_1 \frac{C_2 \times V_2}{C_1} = \frac{80 \times 10}{1000} = 0{,}8\ ml$

  Volume metanol untuk mencapai 80 µg/ml = $V_{metanol}$ = 10 - 0,8 = 9,2 ml
- Konsentrasi 100 µg/ml = $V_1 \frac{C_2 \times V_2}{C_1} = \frac{100 \times 10}{1000} = 1\ ml$

  Volume metanol untuk mencapai 100 µg/ml = $V_{metanol}$ = 10 - 1 = 9 ml

Lampiran 6. Perhitungan Pembuatan Larutan Induk dan Larutan Standar

1. Pembuatan Larutan Induk Vitamin C

   $C = \frac{25\ mg}{25\ ml}$= 1 mg/ml = 1000 µg/ml

2. Pengenceran Larutan Induk Vitamin C menjadi 100 µg/ml

   $V_{1=}\frac{C_2 \times V_2}{C_1} = \frac{100 \times 10}{1000} = 1\ ml$

3. Perhitungan Pembuatan Larutan Standar

- Konsentrasi 2 µg/ml = $V_1 \frac{C_2 \times V_2}{C_1} = \frac{2 \times 10}{100} = 0{,}2\ ml$

  Volume metanol untuk mencapai 2 µg/ml = $V_{metanol}$ = 10 - 0,2 = 9,8 ml
- Konsentrasi 4 µg/ml = $V_1 \frac{C_2 \times V_2}{C_1} = \frac{4 \times 10}{100} = 0{,}4\ ml$

  Volume metanol untuk mencapai 4 µg/ml = $V_{metanol}$ = 10 - 0,4 = 9,6 ml
- Konsentrasi 6 µg/ml = $V_1 \frac{C_2 \times V_2}{C_1} = \frac{6 \times 10}{100} = 0{,}6\ ml$

  Volume metanol untuk mencapai 6 µg/ml = $V_{metanol}$ = 10 - 0,6 = 9,4 ml
- Konsentrasi 8 µg/ml = $V_1 \frac{C_2 \times V_2}{C_1} = \frac{8 \times 10}{100} = 0{,}8\ ml$

  Volume metanol untuk mencapai 8 µg/ml = $V_{metanol}$ = 10 - 0,8 = 9,2 ml
- Konsentrasi 10 µg/ml = $V_1 \frac{C_2 \times V_2}{C_1} = \frac{10 \times 10}{100} = 1\ ml$

  Volume metanol untuk mencapai 10 µg/ml = $V_{metanol}$ = 10 - 1 = 9 ml

4. Perhitungan Penyiapan Larutan DPPH

   $C = \frac{massa\ zat\ (\mu g)}{volume\ larutan\ (ml)} = \frac{10000\ \mu g}{100\ ml} = 100\ \mu g/ml$

Lampiran 7. Hasil uji antioksidan vitamin C (Pembanding)

Perhitungan persen inhibisi vitamin C:

$$\%\ inhibisi = \frac{Abs.kontrol\ (DPPH) - Abs.sampel}{Abs.kontrol\ (DPPH)}\ x\ 100\%$$

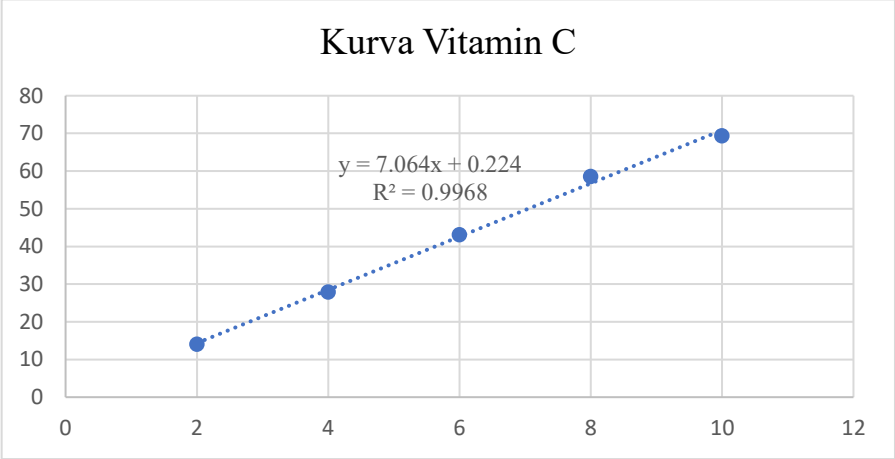
% inhibisi 2 µg/ml = $\frac{0.705-0.606}{0.705}\ x\ 100\%$ = 14,04%

% inhibisi 4 µg/ml = $\frac{0.705-0.508}{0.705}\ x\ 100\%$ = 27,94%

% inhibisi 6 µg/ml = $\frac{0.705-0.401}{0.705}\ x\ 100\%$ = 43,12%

% inhibisi 8 µg/ml = $\frac{0.705-0.292}{0.705}\ x\ 100\%$ = 58,58%

% inhibisi 10 µg/ml = $\frac{0.705-0.216}{0.705}\ x\ 100\%$ = 69,36%



Persamaan regresi linear:

y = 7.064x + 0.224

$R^{2=}$ 0. 9968

Perhitungan IC_{50} Vitamin C

y= ax + b

50= 7,064x + 0,224

50 – 0,224 = 7,064x

49,776 = 7,064x

X = 7,04 µg/ml

Lampiran 8. Hasil uji antioksidan ekstrak gel *Aloe vera*

Perhitungan persen inhibisi Ekstrak gel *Aloe vera*:

$$\%\ inhibisi = \frac{Abs.kontrol\ (DPPH) - Abs.sampel}{Abs.kontrol\ (DPPH)}\ x\ 100\%$$

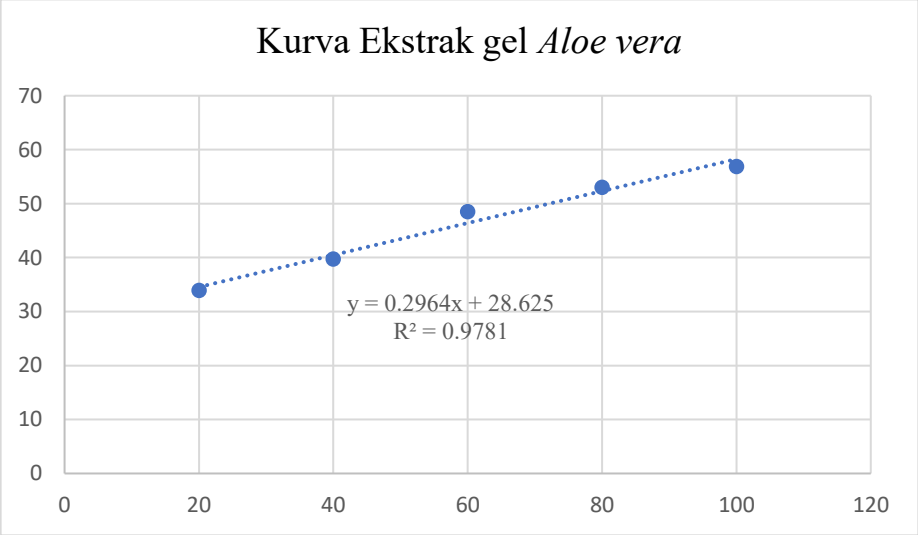
% inhibisi 20 µg/ml = $\frac{0.705-0.466}{0.705}\ x\ 100\% = 33{,}90\%$

% inhibisi 40 µg/ml = $\frac{0.705-0.425}{0.705}\ x\ 100\% = 39{,}71\%$

% inhibisi 60 µg/ml = $\frac{0.705-0.363}{0.705}\ x\ 100\% = 48{,}51\%$

% inhibisi 80 µg/ml = $\frac{0.705-0.331}{0.705}\ x\ 100\% = 53{,}04\%$

% inhibisi 100 µg/ml = $\frac{0.705-0.304}{0.705}\ x\ 100\% = 56{,}87\%$



Persamaan regresi linear:

y = 0.2964x + 28.625
R^2 = 0.9781

Perhitungan IC_{50} ekstrak gel *Aloe vera*

y= ax + b

50= 0,2964x + 28,625

50 – 28,625= 0,2964x

21,375= 0,2964x

X = 72,11 µg/ml

Lampiran 9. Hasil uji antioksidan Produk A

Perhitungan persen inhibisi Produk A:

$$\%\ inhibisi = \frac{Abs.kontrol\ (DPPH) - Abs.sampel}{Abs.kontrol\ (DPPH)}\ x\ 100\%$$

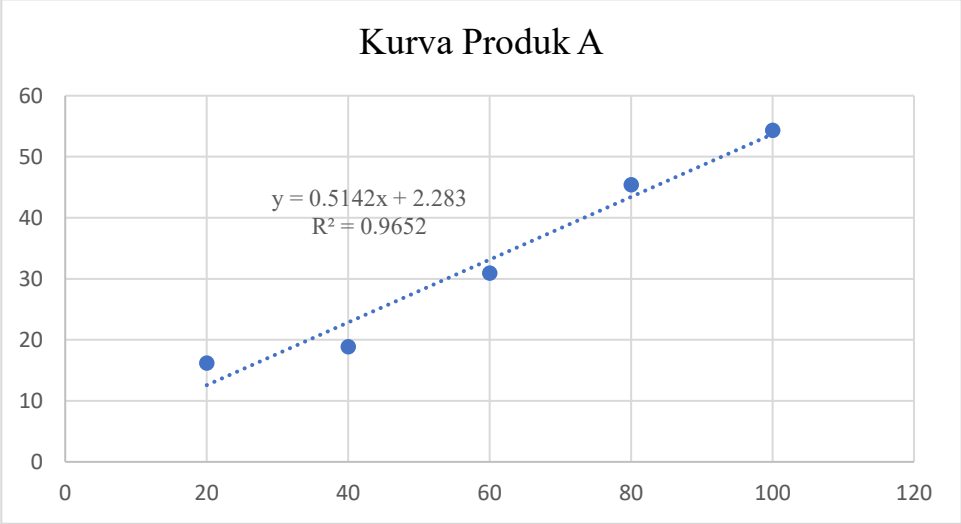
% inhibisi 20 µg/ml = $\frac{0.705-0.591}{0.705}\ x\ 100\%$ = 16,17%

% inhibisi 40 µg/ml = $\frac{0.705-0.572}{0.705}\ x\ 100\%$ = 18,86%

% inhibisi 60 µg/ml = $\frac{0.705-0.487}{0.705}\ x\ 100\%$ = 30,92%

% inhibisi 80 µg/ml = $\frac{0.705-0.385}{0.705}\ x\ 100\%$ = 45,39%

% inhibisi 100 µg/ml = $\frac{0.705-0.322}{0.705}\ x\ 100\%$ = 54,32%



Persamaan regresi linear:

y = 0.5142x + 2.283
R^2 = 0.9652

Perhitungan IC_{50} Produk A

y= ax + b

50= 0,5142x + 2,283

50 – 2,283= 0,5142x

47,717= 0,5142x

X = 92,79 µg/ml

Lampiran 10. Hasil uji antioksidan Produk B

Perhitungan persen inhibisi Produk B:

$$\%\ inhibisi = \frac{Abs.kontrol\ (DPPH) - Abs.sampel}{Abs.kontrol\ (DPPH)}\ x\ 100\%$$

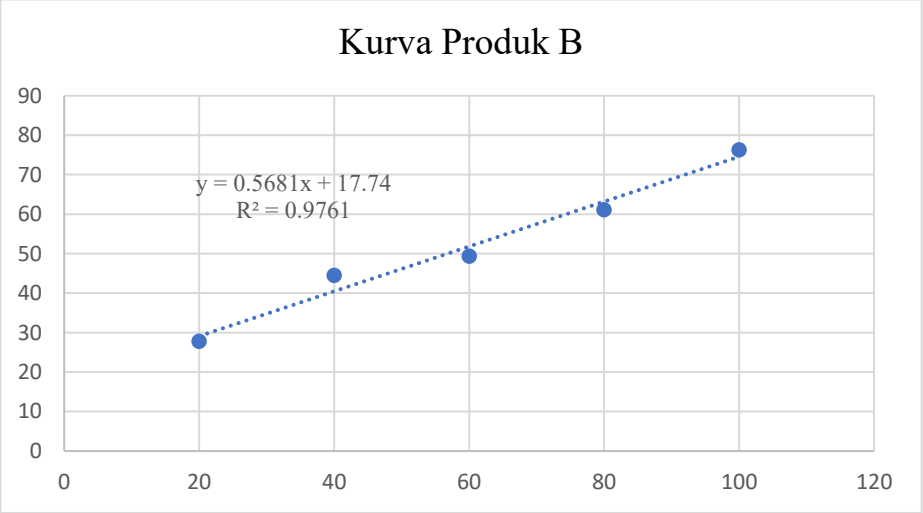
% inhibisi 20 µg/ml = $\frac{0.705-0.509}{0.705}\ x\ 100\% = 27{,}80\%$

% inhibisi 40 µg/ml = $\frac{0.705-0.391}{0.705}\ x\ 100\% = 44{,}53\%$

% inhibisi 60 µg/ml = $\frac{0.705-0.357}{0.705}\ x\ 100\% = 49{,}36\%$

% inhibisi 80 µg/ml = $\frac{0.705-0.274}{0.705}\ x\ 100\% = 61{,}13\%$

% inhibisi 100 µg/ml = $\frac{0.705-0.167}{0.705}\ x\ 100\% = 76{,}31\%$



Persamaan regresi linear:

y = 0.5681x + 17.74
R^2 = 0.9761

Perhitungan IC_{50} Produk B

y= ax + b

50= 0,5681x + 17,74

50 – 17,74= 0,5681x

32,26= 0,5681x

X = 56,78 µg/ml

Lampiran 11. Hasil uji antioksidan Produk C

Perhitungan persen inhibisi Produk C:

$$\%\ inhibisi = \frac{Abs.kontrol\ (DPPH) - Abs.sampel}{Abs.kontrol\ (DPPH)}\ x\ 100\%$$

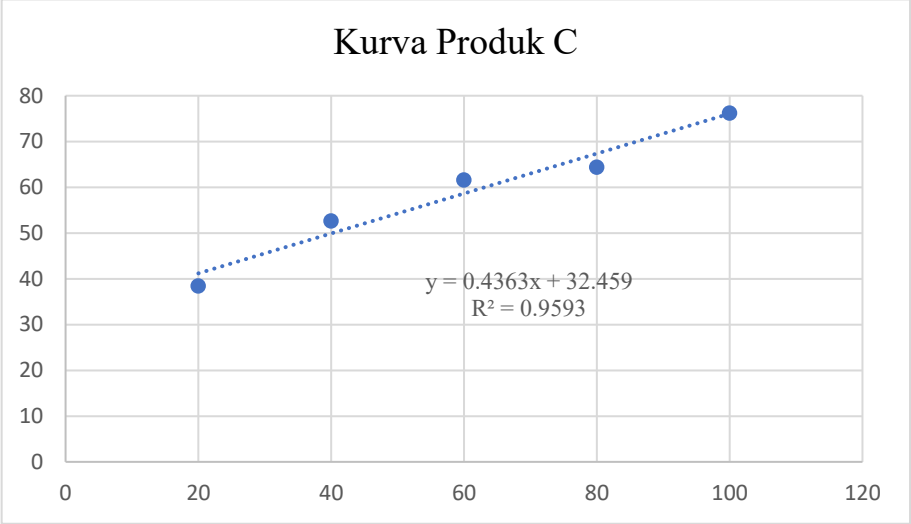
% inhibisi 20 µg/ml = $\frac{0.705-0.434}{0.705}\ x\ 100\% = 38{,}43\%$

% inhibisi 40 µg/ml = $\frac{0.705-0.334}{0.705}\ x\ 100\% = 52{,}62\%$

% inhibisi 60 µg/ml = $\frac{0.705-0.271}{0.705}\ x\ 100\% = 61{,}56\%$

% inhibisi 80 µg/ml = $\frac{0.705-0.251}{0.705}\ x\ 100\% = 64{,}39\%$

% inhibisi 100 µg/ml = $\frac{0.705-0.168}{0.705}\ x\ 100\% = 76{,}17\%$



Persamaan regresi linear:

y = 0.4363x + 32.459
R^2 = 0.9593

Perhitungan IC_{50} Produk C

y= ax + b

50= 0,4363x + 32,459

50 – 32,459= 0,4363x

17,541= 0,4363x

X = 40,20 µg/ml

Lampiran 12. Hasil uji antioksidan Produk D

Perhitungan persen inhibisi Produk D:

$$\%\ inhibisi = \frac{Abs.kontrol\ (DPPH) - Abs.sampel}{Abs.kontrol\ (DPPH)}\ x\ 100\%$$

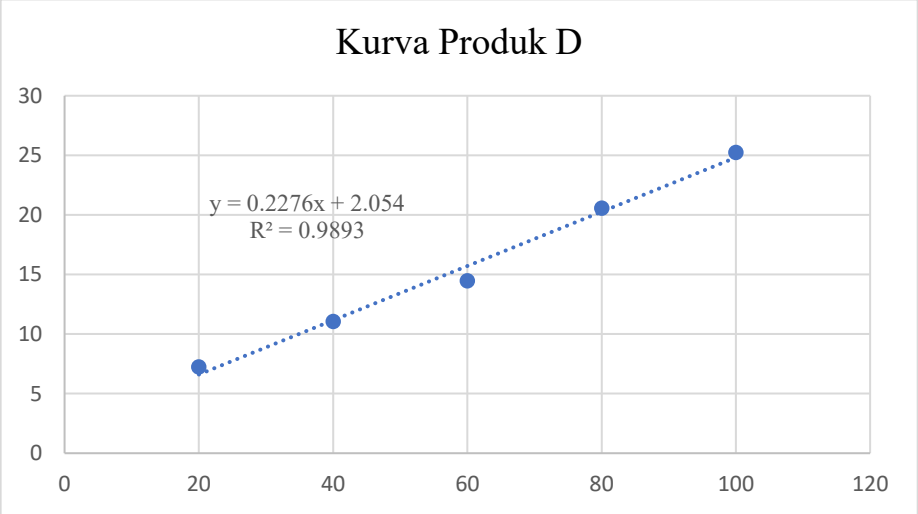
% inhibisi 20 µg/ml = $\frac{0.705-0.654}{0.705}\ x\ 100\%$ = 7,23%

% inhibisi 40 µg/ml = $\frac{0.705-0.627}{0.705}\ x\ 100\%$ = 11,06%

% inhibisi 60 µg/ml = $\frac{0.705-0.603}{0.705}\ x\ 100\%$ = 14,46%

% inhibisi 80 µg/ml = $\frac{0.705-0.560}{0.705}\ x\ 100\%$ = 20,56%

% inhibisi 100 µg/ml = $\frac{0.705-0.527}{0.705}\ x\ 100\%$ = 25,24%



Persamaan regresi linear:

y = 0.2276x + 2.054
R^2 = 0.9893

Perhitungan IC_{50} Produk D

y= ax + b

50= 0,2276x + 2,054

50 – 2,054= 0,2276x

47,946= 0,2276x

X = 210,6 µg/ml

Lampiran 13. Hasil uji antioksidan Produk E

Perhitungan persen inhibisi Produk E:

$$\%\ inhibisi = \frac{Abs.kontrol\ (DPPH) - Abs.sampel}{Abs.kontrol\ (DPPH)}\ x\ 100\%$$

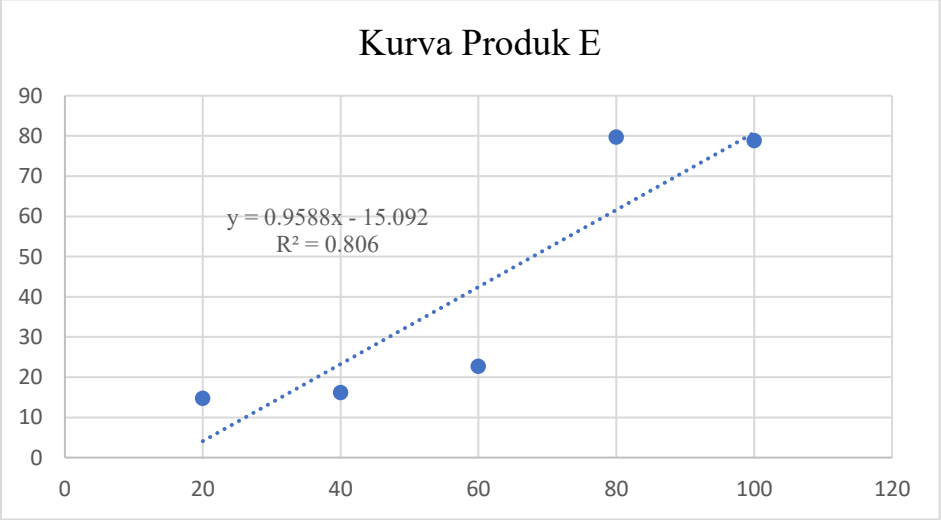
% inhibisi 20 µg/ml = $\frac{0.705-0.601}{0.705}\ x\ 100\%$ = 14,75%

% inhibisi 40 µg/ml = $\frac{0.705-0.591}{0.705}\ x\ 100\%$ = 16,17%

% inhibisi 60 µg/ml = $\frac{0.705-0.545}{0.705}\ x\ 100\%$ = 22,69%

% inhibisi 80 µg/ml = $\frac{0.705-0.143}{0.705}\ x\ 100\%$ = 79,71%

% inhibisi 100 µg/ml = $\frac{0.705-0.149}{0.705}\ x\ 100\%$ = 78,86%



Persamaan regresi linear:

y = 0.9588x - 15.092
R^2 = 0.806

Perhitungan IC_{50} Produk E

y= ax + b

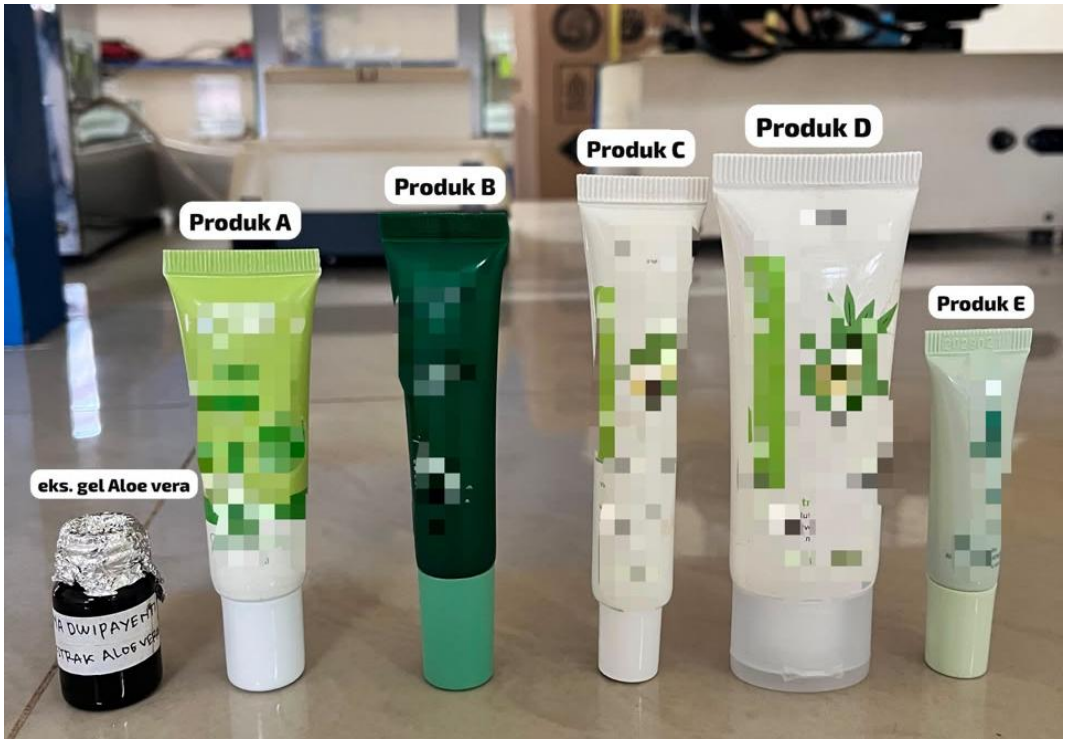
50= 0,9588x – 15,092

50 + 15,092= 0,9588x

65,092= 0,9588x

X= 67,88 µg/ml

Lampiran 14. Sampel ekstrak gel *Aloe vera* dan produk gel *anti-acne*

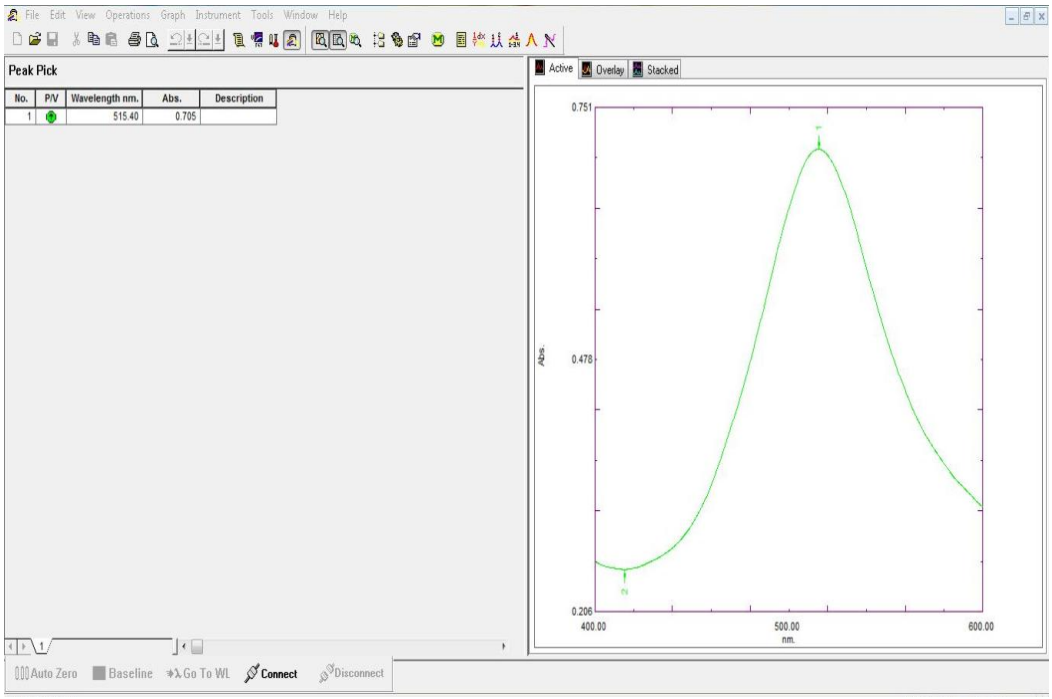


Lampiran 15. Dokumentasi kegiatan penelitian

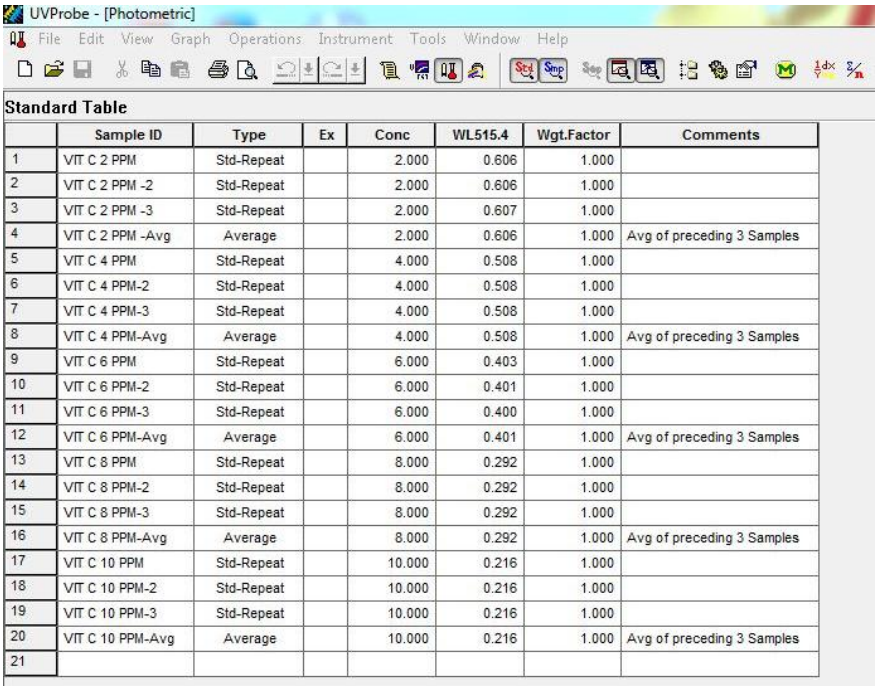
Kegiatan	Keterangan
	Dicuci dan dipotong *Aloe vera* segar
	Proses penimbangan *Aloe vera*
	Diblender daging dan kulit *Aloe vera* segar
	Proses maserasi *Aloe vera*

Kegiatan	Keterangan
	Proses pengambilan ekstrak gel *Aloe vera*
	Larutan vitamin C konsentrasi 2,4,6,8, dan 10 µg/ml.
	Larutan induk tiap sampel konsentrasi 1000 µg/ml.

Lampiran 16. Panjang gelombang DPPH 50 µg/ml



Lampiran 17. Absorbansi Vitamin C (Pembanding)



Standard Table

	Sample ID	Type	Ex	Conc	WL515.4	Wgt.Factor	Comments
1	VIT C 2 PPM	Std-Repeat		2.000	0.606	1.000	
2	VIT C 2 PPM -2	Std-Repeat		2.000	0.606	1.000	
3	VIT C 2 PPM -3	Std-Repeat		2.000	0.607	1.000	
4	VIT C 2 PPM -Avg	Average		2.000	0.606	1.000	Avg of preceding 3 Samples
5	VIT C 4 PPM	Std-Repeat		4.000	0.508	1.000	
6	VIT C 4 PPM-2	Std-Repeat		4.000	0.508	1.000	
7	VIT C 4 PPM-3	Std-Repeat		4.000	0.508	1.000	
8	VIT C 4 PPM-Avg	Average		4.000	0.508	1.000	Avg of preceding 3 Samples
9	VIT C 6 PPM	Std-Repeat		6.000	0.403	1.000	
10	VIT C 6 PPM-2	Std-Repeat		6.000	0.401	1.000	
11	VIT C 6 PPM-3	Std-Repeat		6.000	0.400	1.000	
12	VIT C 6 PPM-Avg	Average		6.000	0.401	1.000	Avg of preceding 3 Samples
13	VIT C 8 PPM	Std-Repeat		8.000	0.292	1.000	
14	VIT C 8 PPM-2	Std-Repeat		8.000	0.292	1.000	
15	VIT C 8 PPM-3	Std-Repeat		8.000	0.292	1.000	
16	VIT C 8 PPM-Avg	Average		8.000	0.292	1.000	Avg of preceding 3 Samples
17	VIT C 10 PPM	Std-Repeat		10.000	0.216	1.000	
18	VIT C 10 PPM-2	Std-Repeat		10.000	0.216	1.000	
19	VIT C 10 PPM-3	Std-Repeat		10.000	0.216	1.000	
20	VIT C 10 PPM-Avg	Average		10.000	0.216	1.000	Avg of preceding 3 Samples
21							

Lampiran 18. Absorbansi ekstrak gel *Aloe vera*

Sample Table

	Sample ID	Type	Ex	Conc	WL515.4	Comments
1	ekstrak aloe 20 ppm	Unk-Repeat			0.466	
2	ekstrak aloe 20 ppm-2	Unk-Repeat			0.466	
3	ekstrak aloe 20 ppm-3	Unk-Repeat			0.466	
4	ekstrak aloe 20 ppm-Avg	Average		4.762	0.466	Avg of preceding 3 Samples
5	ekstrak aloe 40 ppm	Unk-Repeat			0.425	
6	ekstrak aloe 40 ppm-2	Unk-Repeat			0.425	
7	ekstrak aloe 40 ppm-3	Unk-Repeat			0.425	
8	ekstrak aloe 40 ppm-Avg	Average		5.596	0.425	Avg of preceding 3 Samples
9	ekstrak aloe 60 ppm	Unk-Repeat			0.363	
10	ekstrak aloe 60 ppm-2	Unk-Repeat			0.363	
11	ekstrak aloe 60 ppm-3	Unk-Repeat			0.363	
12	ekstrak aloe 60 ppm-Avg	Average		6.845	0.363	Avg of preceding 3 Samples
13	ekstrak aloe 80 ppm	Unk-Repeat			0.331	
14	ekstrak aloe 80 ppm-2	Unk-Repeat			0.331	
15	ekstrak aloe 80 ppm-3	Unk-Repeat			0.331	
16	ekstrak aloe 80 ppm-Avg	Average		7.480	0.331	Avg of preceding 3 Samples
17	esktrak aloe 100 ppm	Unk-Repeat			0.304	
18	esktrak aloe 100 ppm-2	Unk-Repeat			0.303	
19	esktrak aloe 100 ppm-3	Unk-Repeat			0.303	
20	esktrak aloe 100 ppm-Avg	Average		8.031	0.304	Avg of preceding 3 Samples

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Lampiran 19. Absorbansi Produk A

Sample Table

	Sample ID	Type	Ex	Conc	WL515.4	Comments
21	PRODUK A 20 PPM	Unk-Repeat			0.591	
22	PRODUK A 20 PPM-2	Unk-Repeat			0.591	
23	PRODUK A 20 PPM-3	Unk-Repeat			0.591	
24	PRODUK A 20 PPM-Avg	Average		2.266	0.591	Avg of preceding 3 Samples
25	PRODUK A 40 PPM	Unk-Repeat			0.572	
26	PRODUK A 40 PPM-2	Unk-Repeat			0.572	
27	PRODUK A 40 PPM-3	Unk-Repeat			0.572	
28	PRODUK A 40 PPM-Avg	Average		2.648	0.572	Avg of preceding 3 Samples
29	PRODUK A 60 PPM	Unk-Repeat			0.487	
30	PRODUK A 60 PPM-2	Unk-Repeat			0.487	
31	PRODUK A 60 PPM-3	Unk-Repeat			0.487	
32	PRODUK A 60 PPM-Avg	Average		4.353	0.487	Avg of preceding 3 Samples
33	PRODUK A 80 PPM	Unk-Repeat			0.385	
34	PRODUK A 80 PPM-2	Unk-Repeat			0.385	
35	PRODUK A 80 PPM-3	Unk-Repeat			0.386	
36	PRODUK A 80 PPM-Avg	Average		6.387	0.385	Avg of preceding 3 Samples
37	PRODUK A 100 PPM	Unk-Repeat			0.322	
38	PRODUK A 100 PPM-2	Unk-Repeat			0.322	
39	PRODUK A 100 PPM-3	Unk-Repeat			0.322	
40	PRODUK A 100 PPM-Avg	Average		7.660	0.322	Avg of preceding 3 Samples

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Lampiran 20. Absorbansi Produk B

Sample Table

	Sample ID	Type	Ex	Conc	WL515.4	Comments
41	PRODUK B 20 PPM	Unk-Repeat			0.509	
42	PRODUK B 20 PPM-2	Unk-Repeat			0.509	
43	PRODUK B 20 PPM-3	Unk-Repeat			0.509	
44	PRODUK B 20 PPM-Avg	Average		3.910	0.509	Avg of preceding 3 Samples
45	PRODUK B 40 PPM	Unk-Repeat			0.391	
46	PRODUK B 40 PPM-2	Unk-Repeat			0.391	
47	PRODUK B 40 PPM-3	Unk-Repeat			0.391	
48	PRODUK B 40 PPM-Avg	Average		6.268	0.391	Avg of preceding 3 Samples
49	PRODUK B 60 PPM	Unk-Repeat			0.358	
50	PRODUK B 60 PPM-2	Unk-Repeat			0.357	
51	PRODUK B 60 PPM-3	Unk-Repeat			0.357	
52	PRODUK B 60 PPM-Avg	Average		6.957	0.357	Avg of preceding 3 Samples
53	PRODUK B 80 PPM	Unk-Repeat			0.275	
54	PRODUK B 80 PPM-2	Unk-Repeat			0.274	
55	PRODUK B 80 PPM-3	Unk-Repeat			0.274	
56	PRODUK B 80 PPM-Avg	Average		8.614	0.274	Avg of preceding 3 Samples
57	PRODUK B 100 PPM	Unk-Repeat			0.167	
58	PRODUK B 100 PPM-2	Unk-Repeat			0.167	
59	PRODUK B 100 PPM-3	Unk-Repeat			0.167	
60	PRODUK B 100 PPM-Avg	Average		10.776	0.167	Avg of preceding 3 Samples

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Lampiran 21. Absorbansi Produk C

Sample Table

	Sample ID	Type	Ex	Conc	WL515.4	Comments
61	PRODUK C 20 PPM	Unk-Repeat			0.434	
62	PRODUK C 20 PPM-2	Unk-Repeat			0.434	
63	PRODUK C 20 PPM-3	Unk-Repeat			0.434	
64	PRODUK C 20 PPM-Avg	Average		5.416	0.434	Avg of preceding 3 Samples
65	PRODUK C 40 PPM	Unk-Repeat			0.334	
66	PRODUK C 40 PPM-2	Unk-Repeat			0.334	
67	PRODUK C 40 PPM-3	Unk-Repeat			0.334	
68	PRODUK C 40 PPM-Avg	Average		7.420	0.334	Avg of preceding 3 Samples
69	PRODUK C 60 PPM	Unk-Repeat			0.271	
70	PRODUK C 60 PPM-2	Unk-Repeat			0.271	
71	PRODUK C 60 PPM-3	Unk-Repeat			0.271	
72	PRODUK C 60 PPM-Avg	Average		8.677	0.271	Avg of preceding 3 Samples
73	PRODUK C 80 PPM	Unk-Repeat			0.250	
74	PRODUK C 80 PPM-2	Unk-Repeat			0.252	
75	PRODUK C 80 PPM-3	Unk-Repeat			0.250	
76	PRODUK C 80 PPM-Avg	Average		9.091	0.251	Avg of preceding 3 Samples
77	PRODUK C 100 PPM	Unk-Repeat			0.168	
78	PRODUK C 100 PPM-2	Unk-Repeat			0.168	
79	PRODUK C 100 PPM-3	Unk-Repeat			0.168	
80	PRODUK C 100 PPM-Avg	Average		10.760	0.168	Avg of preceding 3 Samples

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Lampiran 22. Absorbansi Produk D

Sample Table

	Sample ID	Type	Ex	Conc	WL515.4	Comments
101	PRODUKK D 20 PPM	Unk-Repeat			0.654	
102	PRODUKK D 20 PPM-2	Unk-Repeat			0.654	
103	PRODUKK D 20 PPM-3	Unk-Repeat			0.654	
104	PRODUKK D 20 PPM-Avg	Average		0.993	0.654	Avg of preceding 3 Samples
105	PRODUKK D 40 PPM	Unk-Repeat			0.627	
106	PRODUKK D 40 PPM-2	Unk-Repeat			0.627	
107	PRODUKK D 40 PPM-3	Unk-Repeat			0.627	
108	PRODUKK D 40 PPM-Avg	Average		1.541	0.627	Avg of preceding 3 Samples
109	PRODUKK D 60 PPM	Unk-Repeat			0.603	
110	PRODUKK D 60 PPM-2	Unk-Repeat			0.603	
111	PRODUKK D 60 PPM-3	Unk-Repeat			0.604	
112	PRODUKK D 60 PPM-Avg	Average		2.015	0.603	Avg of preceding 3 Samples
113	PRODUKK D 80 PPM	Unk-Repeat			0.560	
114	PRODUKK D 80 PPM-2	Unk-Repeat			0.560	
115	PRODUKK D 80 PPM-3	Unk-Repeat			0.560	
116	PRODUKK D 80 PPM-Avg	Average		2.890	0.560	Avg of preceding 3 Samples
117	PRODUKK D 100 PPM	Unk-Repeat			0.527	
118	PRODUKK D 100 PPM-2	Unk-Repeat			0.527	
119	PRODUKK D 100 PPM-3	Unk-Repeat			0.527	
120	PRODUKK D 100 PPM-Avg	Average		3.543	0.527	Avg of preceding 3 Samples

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Lampiran 23. Absorbansi Produk E

Sample Table

	Sample ID	Type	Ex	Conc	WL515.4	Comments
101	PRODUK E 20 PPM	Unk-Repeat			0.601	
102	PRODUK E 20 PPM-2	Unk-Repeat			0.601	
103	PRODUK E 20 PPM-3	Unk-Repeat			0.601	
104	PRODUK E 20 PPM-Avg	Average		2.054	0.601	Avg of preceding 3 Samples
105	PRODUK E 40 PPM	Unk-Repeat			0.591	
106	PRODUK E 40 PPM-2	Unk-Repeat			0.591	
107	PRODUK E 40 PPM-3	Unk-Repeat			0.591	
108	PRODUK E 40 PPM-Avg	Average		2.264	0.591	Avg of preceding 3 Samples
109	PRODUK E 60 PPM	Unk-Repeat			0.545	
110	PRODUK E 60 PPM-2	Unk-Repeat			0.545	
111	PRODUK E 60 PPM-3	Unk-Repeat			0.545	
112	PRODUK E 60 PPM-Avg	Average		3.190	0.545	Avg of preceding 3 Samples
113	PRODUK E 80 PPM	Unk-Repeat			0.143	
114	PRODUK E 80 PPM-2	Unk-Repeat			0.143	
115	PRODUK E 80 PPM-3	Unk-Repeat			0.143	
116	PRODUK E 80 PPM-Avg	Average		11.257	0.143	Avg of preceding 3 Samples
117	PRODUK 100 PPM	Unk-Repeat			0.149	
118	PRODUK 100 PPM-2	Unk-Repeat			0.149	
119	PRODUK 100 PPM-3	Unk-Repeat			0.149	
120	PRODUK 100 PPM-Avg	Average		11.135	0.149	Avg of preceding 3 Samples

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