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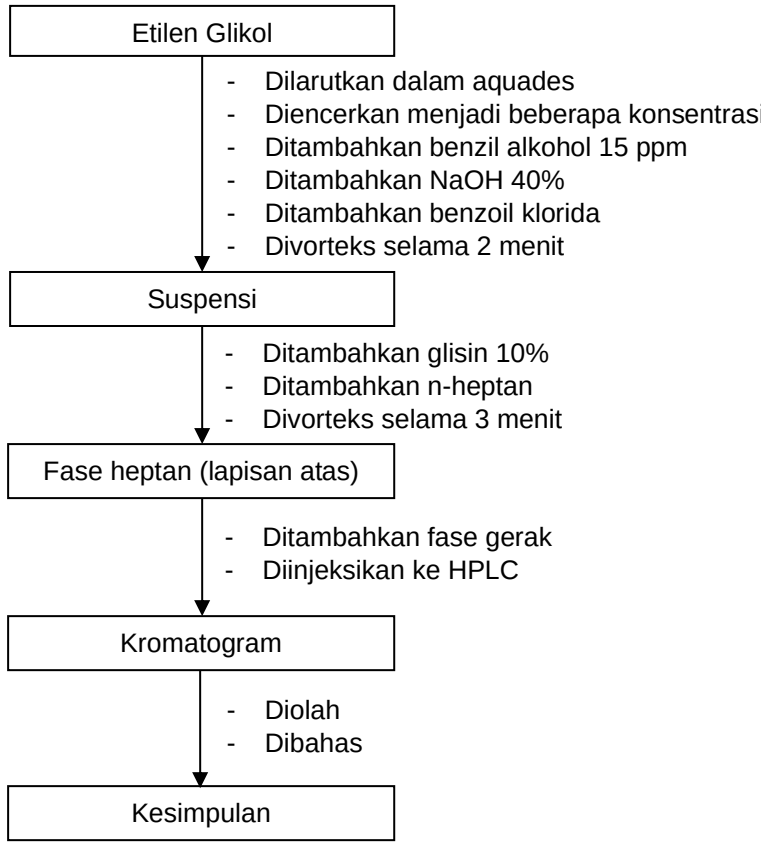
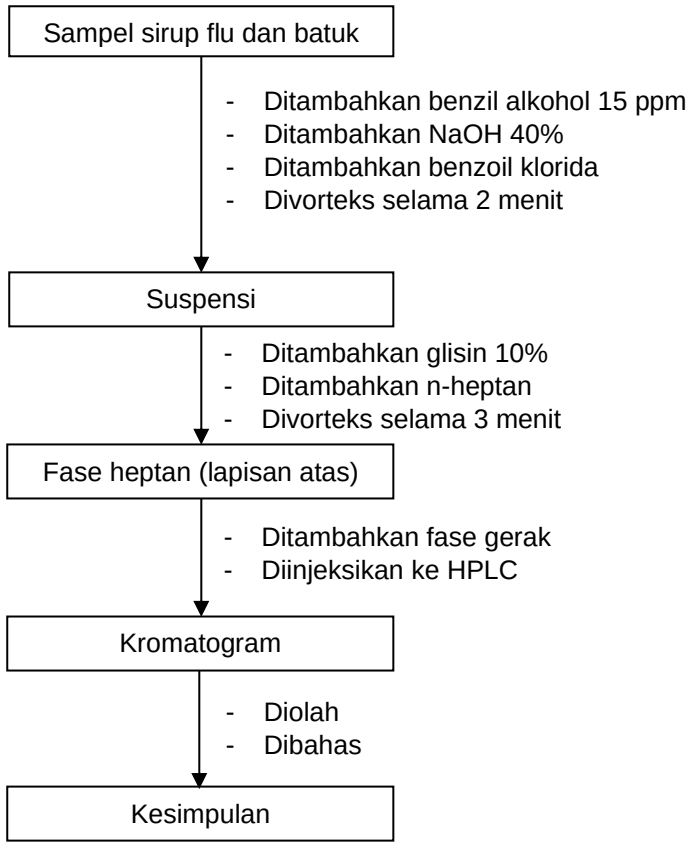
LAMPIRAN

Lampiran 1. Skema kerja umum

Pembuatan Kurva Baku



Analisis Residu EG dalam Sampel



Lampiran 2. Perhitungan

Perhitungan Linearitas

Konsentrasi (ppm)	Waktu retensi (menit)	AUC
1	2.805	223491
10	2.949	891804
20	2.998	1146924
30	3.069	1728335
40	3.086	2286412

Persamaan regresi:
y = a + bx
a = 233791
b = 50574
y = 233791 + 50574x
r = 0,992371

Perhitungan Batas Deteksi dan Batas Kuantitasi

Konsentrasi (ppm)	AUC	y'	y-y'	y^2
1	223491	284365	-60874	3705643876
10	891804	739531	152273	23187066529
20	1146924	1245271	-98347	9672132409
30	1728335	1751011	-22676	514200976
40	2286412	2256751	29661	879774921
			AVG	7591763742
			AVG(n)	1897940936
			Sy	43565,36394
			Batas deteksi	2,842680053
			Batas kuantitasi	8,61418198

$$\text{Batas deteksi} = \frac{3{,}3\ Sy}{b}$$

$$= \frac{3{,}3(43565{,}36394)}{50574}$$

$$= 2{,}842680053 \text{ ppm}$$

$$\text{Batas kuantitasi} = \frac{10\ Sy}{b}$$

$$= \frac{10(43565,36394)}{50574}$$

= 8,61418198 ppm

Perhitungan Kadar EG pada Sampel

Sampel	Waktu retensi (menit)	AUC	Kadar EG (ppm)	Kadar EG dalam Sirup (mg/mL)
A	3,066	1733914	29,66194092	0,02966194092
B	-	-	Tidak terdeteksi	Tidak terdeteksi
C	2,832	343484	2,168960335	0,002168960335
D	-	-	Tidak terdeteksi	Tidak terdeteksi
E	2,941	183875	-0,98698936	-0,00098698936
F	-	-	Tidak terdeteksi	Tidak terdeteksi
G	-	-	Tidak terdeteksi	Tidak terdeteksi
H	2,907	613548	7,508937399	0,007508937399
I	-	-	Tidak terdeteksi	Tidak terdeteksi
J	-	-	Tidak terdeteksi	Tidak terdeteksi
K	2,911	509687	5,455293234	0,005455293234
L	3,027	1101220	17,15167873	0,01715167873
M	-	-	Tidak terdeteksi	Tidak terdeteksi
N	2,928	381006	2,910883062	0,002910883062
O	-	-	Tidak terdeteksi	Tidak terdeteksi

$y = 233791 + 50574x$

Sampel A

$$x = \frac{1733914 - 233791}{50574}$$

= 29,66194092 ppm

= 29,66194092 mg/L

= 0,02966194092 mg/mL

Perhitungan Resolusi

$$R = \frac{2(t_{R2} - t_{R1})}{W_1 + W_2}$$

Resolusi untuk kromatogram 1 ppm

$$R = \frac{2\,(8,677 - 2,805)}{0,396 + 0,475}$$

R = 13,48335247

Perhitungan jumlah pelat teori (N)

$$N = 16 \left[\frac{t_R}{W}\right]^2$$

Nilai N untuk konsentrasi 1 ppm

$$N = 16 \left[\frac{2,805}{0,396}\right]^2$$

N = 802,7777778

Perhitungan HETP

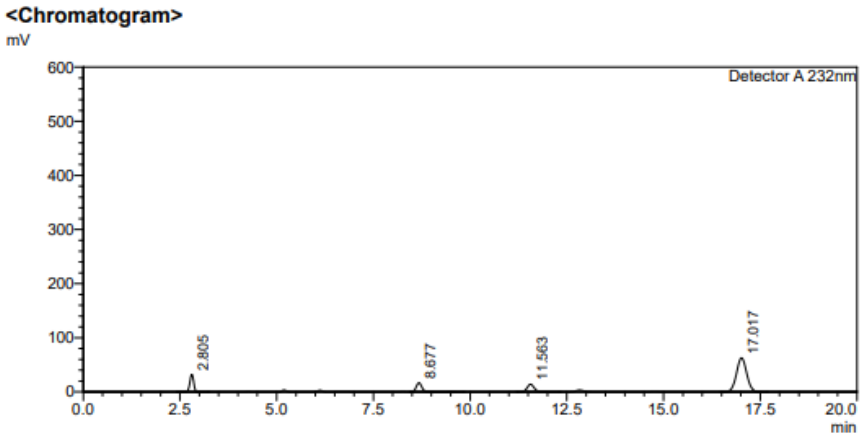
$$H = \frac{L}{N}$$

Nilai HETP untuk konsentrasi 1 ppm

$$H = \frac{250 \text{ mm}}{802,7777778}$$

H = 0,311418685

Lampiran 3. Data Kromatogram

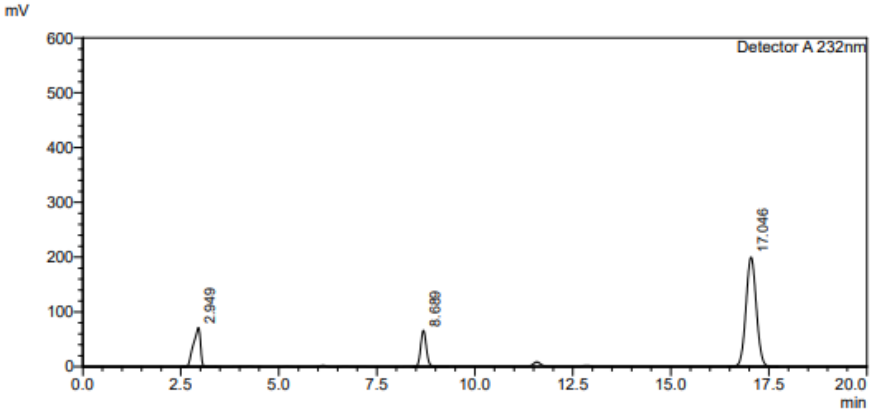


<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.805	223491	32140	13.167			
2	8.677	163629	16540	9.640		SV	
3	11.563	169480	13630	9.985			
4	17.017	1140758	62482	67.208			
Total		1697358	124791				

Gambar 5. Kromatogram baku konsentrasi 1 ppm



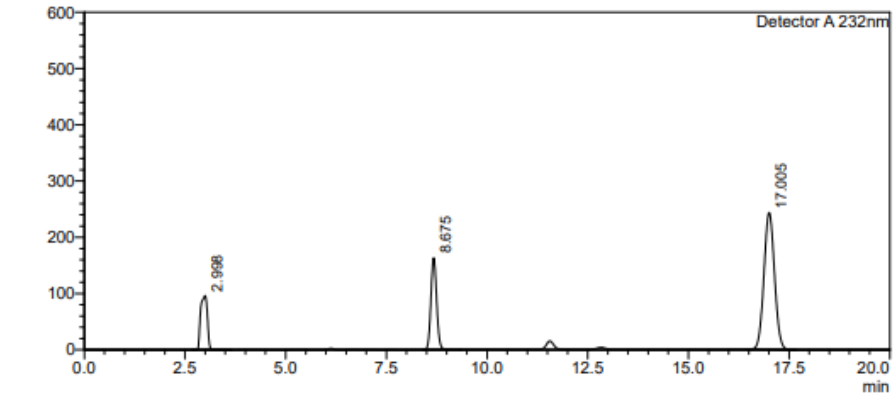
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.949	891804	71243	17.134			
2	8.689	653916	66026	12.563			
3	17.046	3659270	199385	70.303			
Total		5204991	336655				

Gambar 6. Kromatogram baku konsentrasi 10 ppm

<Chromatogram>



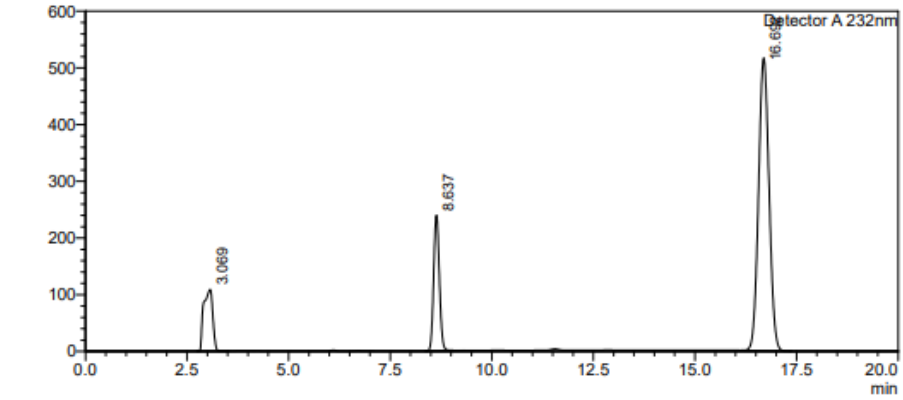
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.998	1146924	96447	15.950			
2	8.675	1592017	163130	22.140			
3	17.005	4451689	243437	61.910			
Total		7190630	503015				

Gambar 7. Kromatogram baku konsentrasi 20 ppm

<Chromatogram>



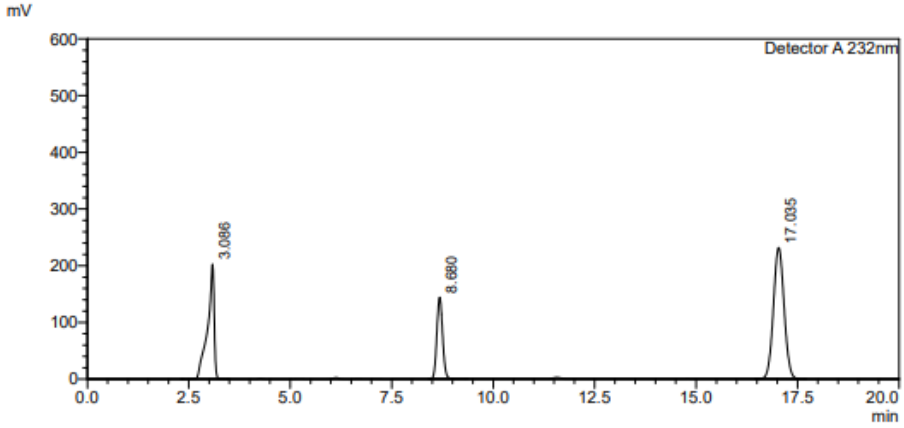
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	3.069	1728335	109413	12.936			
2	8.637	2329081	238899	17.433			
3	16.692	9302889	516368	69.631			
Total		13360304	864680				

Gambar 8. Kromatogram baku konsentrasi 30 ppm

<Chromatogram>



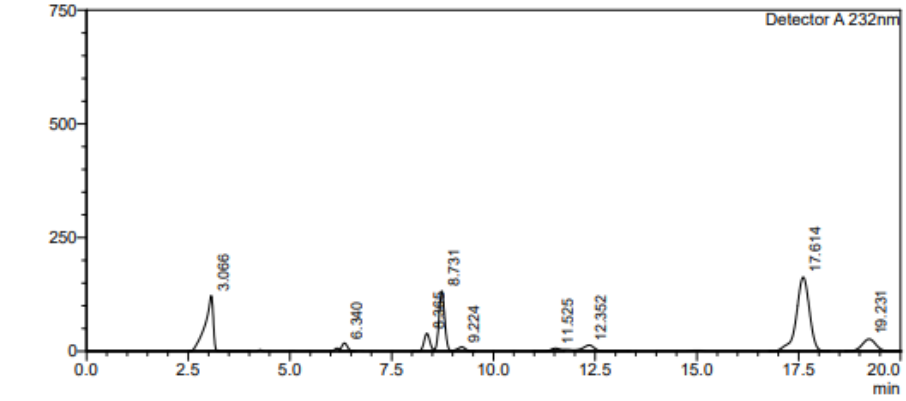
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	3.086	2286412	202514	28.773			
2	8.680	1409781	143797	17.741			
3	17.035	4250058	231608	53.485			
Total		7946252	577919				

Gambar 9. Kromatogram baku konsentrasi 40 ppm

<Chromatogram>



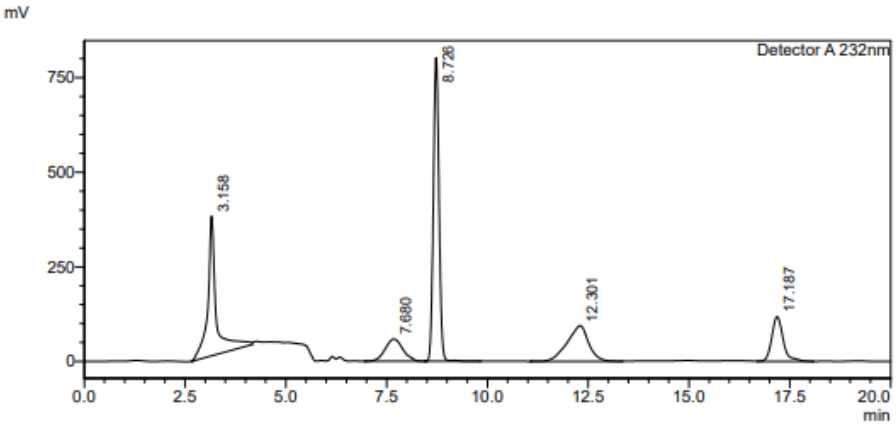
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	3.066	1733914	122699	20.605		SV	
2	6.340	178560	18179	2.122		V	
3	8.365	398235	39239	4.732			
4	8.731	1291889	132933	15.352		V	
5	9.224	135319	9577	1.608		V	
6	11.525	112933	6508	1.342			
7	12.352	275626	13599	3.275		SV	
8	17.614	3648372	163023	43.355			
9	19.231	640206	27014	7.608		V	
Total		8415053	532774				

Gambar 10. Kromatogram sampel A

<Chromatogram>



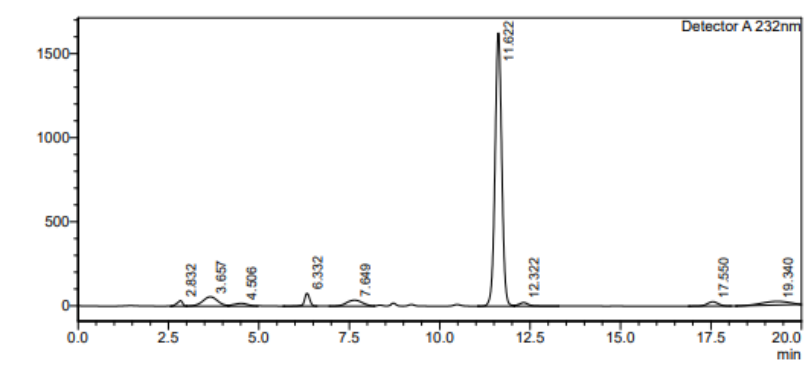
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	3.158	5365449	368925	25.830			
2	7.680	1797875	58645	8.655			
3	8.726	7813457	802109	37.615		S	
4	12.301	3479671	94047	16.752			
5	17.187	2315591	118163	11.148		V	
Total		20772044	1441888				

Gambar 11. Kromatogram sampel B

<Chromatogram>

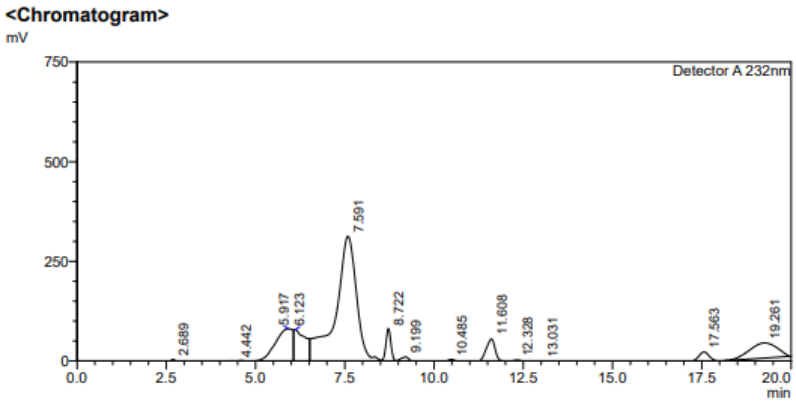


<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.832	343484	32702	1.255		V	
2	3.657	1612297	55349	5.890		V	
3	4.506	445620	16448	1.628		V	
4	6.332	749465	76312	2.738		V	
5	7.649	1097154	35413	4.008		V	
6	11.622	21056771	1623440	76.926		V	
7	12.322	409671	20962	1.497		V	
8	17.550	538857	25844	1.969			
9	19.340	1119561	21212	4.090			
Total		27372880	1907682				

Gambar 12. Kromatogram sampel C

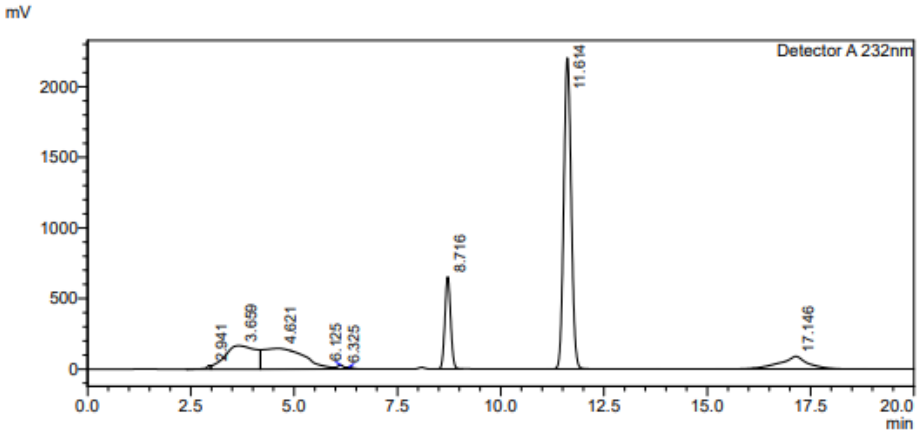


<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.689	40447	5591	0.181		V	
2	4.442	43919	2389	0.196		V	
3	5.917	2838084	82733	12.684		V	
4	6.123	1823998	80615	8.152		V	
5	7.591	12867721	315050	57.510		SV	
6	8.722	827085	83403	3.697		V	
7	9.199	196571	12084	0.879		V	
8	10.485	75250	5611	0.336			
9	11.608	1016919	57357	4.545			
10	12.328	75597	4131	0.338		V	
11	13.031	42372	717	0.189		V	
12	17.563	470222	23259	2.102			
13	19.261	2056401	38055	9.191			
Total		22374586	710997				

Gambar 13. Kromatogram sampel D



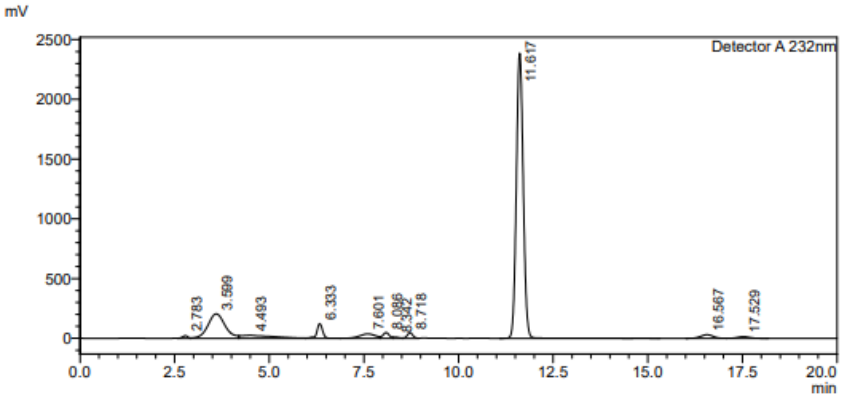
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.941	183875	25736	0.318			
2	3.659	8625281	165419	14.938		V	
3	4.621	10084255	146940	17.465		V	
4	6.125	314349	28047	0.544		V	
5	6.325	142547	14263	0.247		V	
6	8.716	6333196	653387	10.969		V	
7	11.614	27765016	2204590	48.087		S	
8	17.146	4290124	89361	7.430		V	
Total		57738642	3327743				

Gambar 14. Kromatogram sampel E

<Chromatogram>



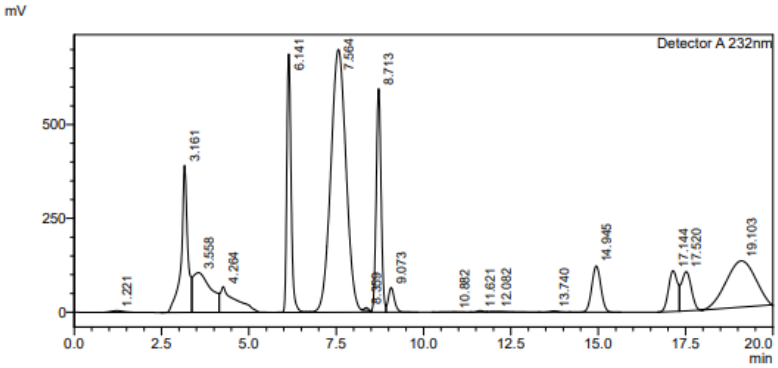
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.783	208219	22144	0.486		V	
2	3.599	6458334	205133	15.071		V	
3	4.493	1483101	25416	3.461		V	
4	6.333	1268903	122933	2.961		SV	
5	7.601	1061975	36605	2.478		V	
6	8.086	560595	48828	1.308		V	
7	8.342	94961	9481	0.222		V	
8	8.718	482869	48523	1.127		V	
9	11.617	30270628	2386653	70.637		SV	
10	16.567	672273	30301	1.569		V	
11	17.529	292034	13932	0.681		V	
Total		42853893	2949949				

Gambar 15. Kromatogram sampel F

<Chromatogram>



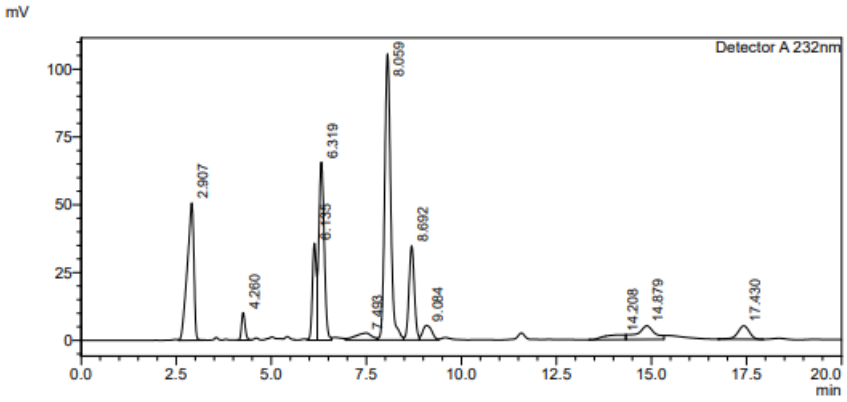
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	1.221	123082	4657	0.210			
2	3.161	4971613	391564	8.483			
3	3.558	3787446	105983	6.462		V	
4	4.264	2106912	68389	3.595		SV	
5	6.141	5979328	688370	10.202		V	
6	7.564	21303931	700376	36.349		SV	
7	8.359	53729	7239	0.092		T	
8	8.713	5784914	595471	9.870		V	
9	9.073	789832	65598	1.348		SV	
10	10.882	25368	793	0.043			
11	11.621	55781	4039	0.095		V	
12	12.082	93073	2309	0.159		V	
13	13.740	56563	3268	0.097		V	
14	14.945	2234819	123167	3.813		V	
15	17.144	1963739	108669	3.351			
16	17.520	2064255	104477	3.522		V	
17	19.103	7215576	123031	12.311			
Total		58609963	3097401				

Gambar 16. Kromatogram sampel G

<Chromatogram>



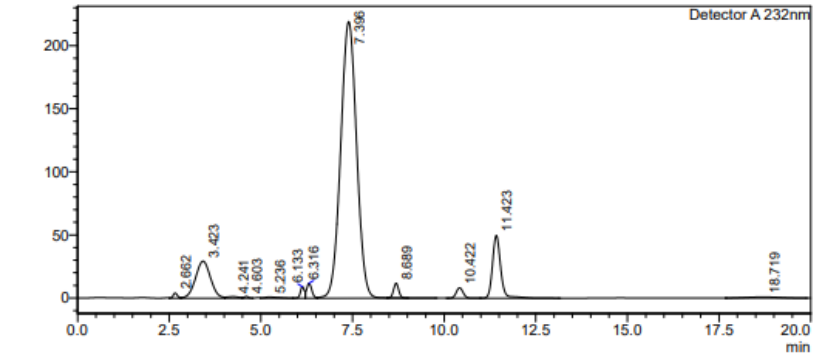
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.907	613548	50700	17.150		V	
2	4.260	66244	10122	1.852		V	
3	6.135	266258	35737	7.442		V	
4	6.319	633305	65618	17.702		V	
5	7.493	77655	2581	2.171		V	
6	8.059	1162320	105509	32.489		V	
7	8.692	340589	34680	9.520		V	
8	9.084	87976	5304	2.459		V	
9	14.208	66749	1759	1.866			
10	14.879	160023	5046	4.473		V	
11	17.430	102954	4933	2.878			
Total		3577621	321988				

Gambar 17. Kromatogram sampel H

<Chromatogram>



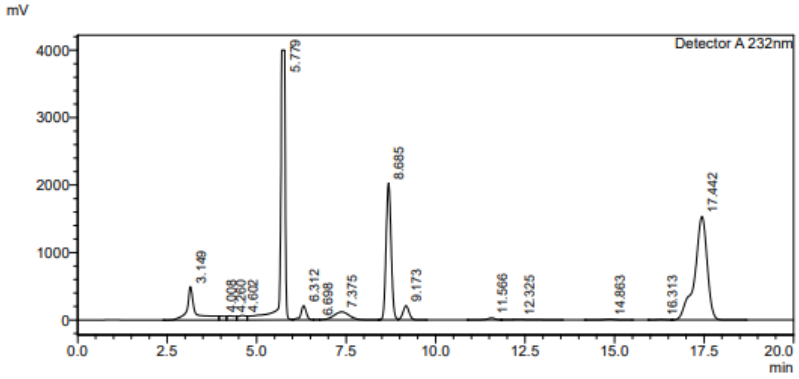
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.662	32341	3967	0.369		V	
2	3.423	833695	29297	9.502		V	
3	4.241	25984	1177	0.296		V	
4	4.603	11541	1385	0.132		V	
5	5.236	25134	974	0.286		V	
6	6.133	71368	9152	0.813		V	
7	6.316	110865	11768	1.264		V	
8	7.396	6627371	219069	75.534		SV	
9	8.689	111684	11569	1.273		T	
10	10.422	107071	8193	1.220		S	
11	11.423	767367	49724	8.746		SV	
12	18.719	49551	796	0.565			
Total		8773971	347070				

Gambar 18. Kromatogram sampel I

<Chromatogram>



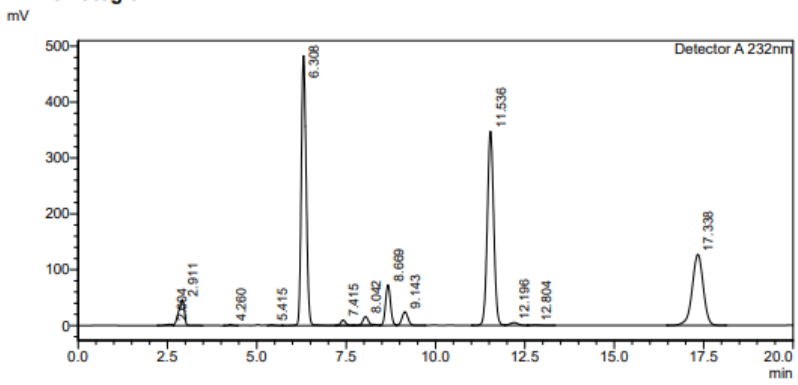
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	3.149	7911746	493198	6.909			
2	4.008	699270	56299	0.611		V	
3	4.260	992236	60068	0.867		V	
4	4.602	1048113	66818	0.915		V	
5	5.779	37226518	3999587	32.510		V	
6	6.312	2189262	209528	1.912		V	
7	6.698	52709	5123	0.046		V	
8	7.375	3636023	117928	3.175		SV	
9	8.685	19856008	2025504	17.340		V	
10	9.173	2489736	209441	2.174		V	
11	11.566	414173	27981	0.362		V	
12	12.325	304284	5560	0.266		V	
13	14.863	185115	9908	0.162			
14	16.313	93061	5349	0.081		V	
15	17.442	37409285	1532650	32.670		SV	
Total		114507539	8824941				

Gambar 19. Kromatogram sampel J

<Chromatogram>



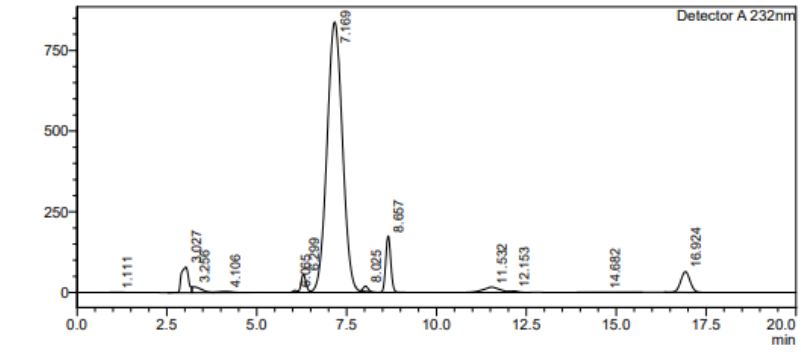
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.604	27853	2145	0.206			
2	2.911	509687	46287	3.771		V	
3	4.260	13008	1928	0.096		V	
4	5.415	11752	1432	0.087		V	
5	6.308	4540209	482924	33.595		S	
6	7.415	90748	9553	0.671		T	
7	8.042	167009	15852	1.236		T	
8	8.669	704406	72758	5.212		V	
9	9.143	284540	24429	2.105		V	
10	11.536	4341196	347470	32.122			
11	12.196	80257	5182	0.594		V	
12	12.804	12467	818	0.092		V	
13	17.338	2731531	127118	20.212			
Total		13514662	1137896				

Gambar 20. Kromatogram sampel K

<Chromatogram>



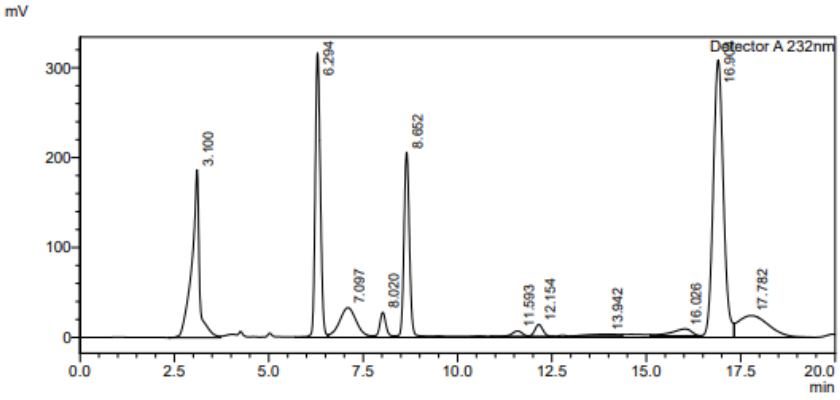
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	1.111	28065	984	0.091			
2	3.027	1101220	79130	3.561			
3	3.256	318703	17400	1.030		V	
4	4.106	98799	3447	0.319		SV	
5	6.065	51743	6466	0.167		V	
6	6.299	540447	56830	1.747		V	
7	7.169	25147153	838052	81.310		SV	
8	8.025	152619	16285	0.493		T	
9	8.657	1706749	175220	5.519		SV	
10	11.532	531923	16381	1.720			
11	12.153	69328	4493	0.224		V	
12	14.682	19156	332	0.062			
13	16.924	1161516	64227	3.756			
Total		30927420	1279247				

Gambar 21. Kromatogram sampel L

<Chromatogram>



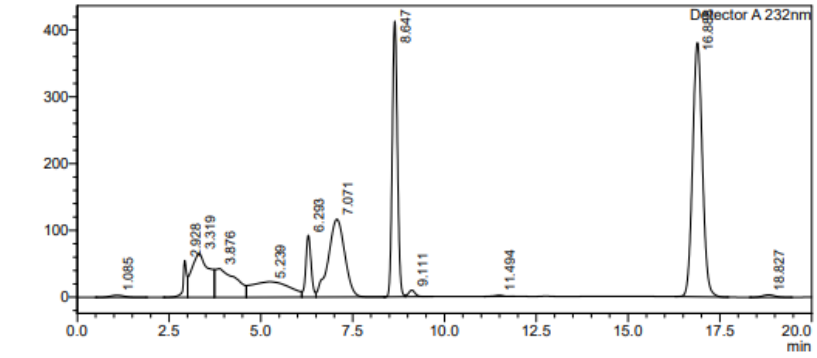
<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	3.100	2627545	186784	15.008			
2	6.294	2990635	316511	17.082		V	
3	7.097	1049905	33130	5.997		V	
4	8.020	328358	27898	1.876		V	
5	8.652	2649319	206161	15.132		SV	
6	11.593	112561	5916	0.643		T	
7	12.154	193747	13146	1.107		TV	
8	13.942	131595	2194	0.752		TV	
9	16.026	292012	7679	1.668		TV	
10	16.904	5780650	308431	33.018		V	
11	17.782	1351194	24155	7.718		V	
Total		17507521	1132007				

Gambar 22. Kromatogram sampel M

<Chromatogram>

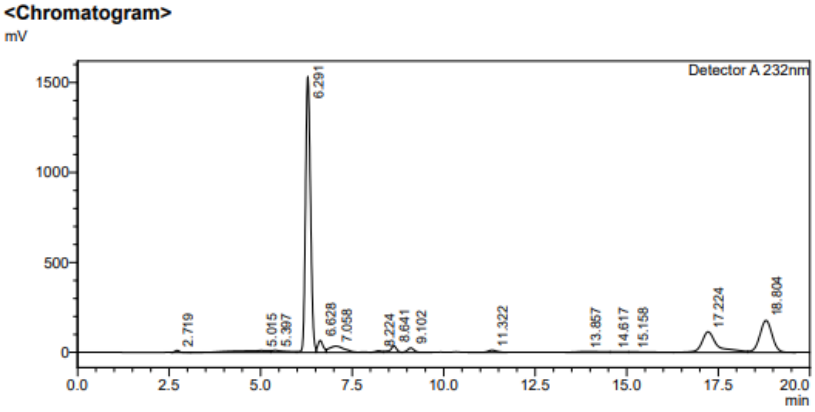


<Peak Table>

Detector A 232nm

Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	1.085	83832	3183	0.387			
2	2.928	381006	55113	1.757			
3	3.319	2125835	65693	9.805		V	
4	3.876	1655808	42817	7.637		V	
5	5.239	1660589	23159	7.659		V	
6	6.293	925820	92587	4.270		V	
7	7.071	3627051	116441	16.729		SV	
8	8.647	3989971	412625	18.403			
9	9.111	120632	9778	0.556		V	
10	11.494	27650	1790	0.128		V	
11	16.888	7000060	380250	32.286			
12	18.827	83067	3653	0.383			
Total		21681323	1207090				

Gambar 23. Kromatogram sampel N



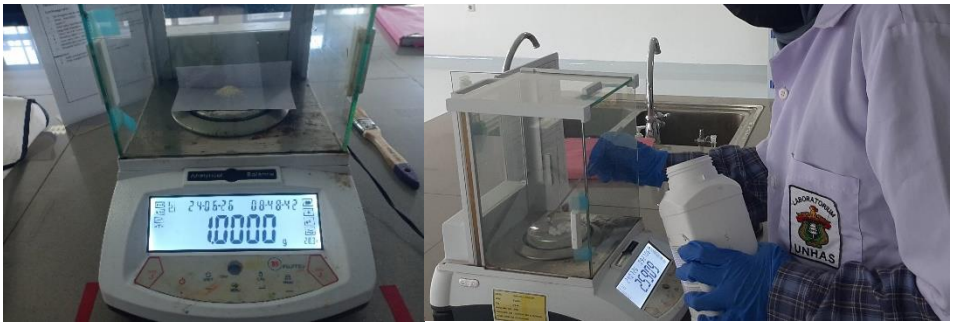
<Peak Table>

Detector A 232nm

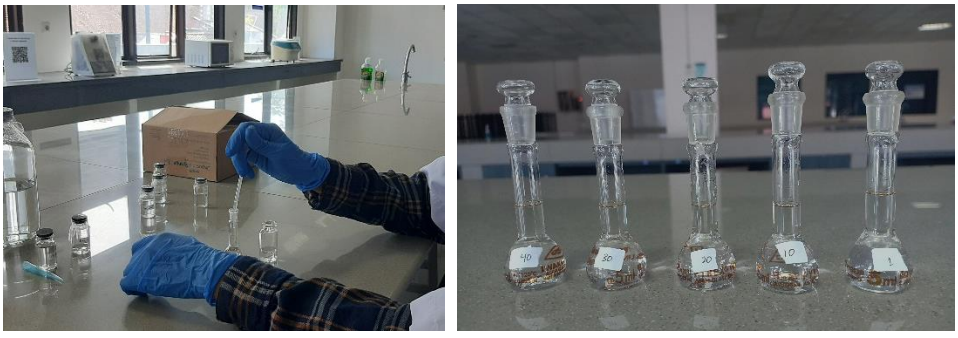
Peak#	Ret. Time	Area	Height	Conc.	Unit	Mark	Name
1	2.719	83320	10530	0.320		V	
2	5.015	697006	10623	2.674			
3	5.397	288391	11734	1.106		V	
4	6.291	14463097	1533801	55.485		V	
5	6.628	669653	66261	2.569		V	
6	7.058	998272	34250	3.830		SV	
7	8.224	102521	8434	0.393		V	
8	8.641	414210	35269	1.589		V	
9	9.102	305937	24344	1.174		V	
10	11.322	203775	12031	0.782		V	
11	13.857	212523	4279	0.815		V	
12	14.617	83804	2993	0.321		V	
13	15.158	112974	2527	0.433		V	
14	17.224	3303644	114312	12.674		V	
15	18.804	4127779	177296	15.835		V	
Total		26066906	2048685				

Gambar 24. Kromatogram sampel O

Lampiran 4. Dokumentasi Penelitian



Gambar 25. Menimbang bahan



Gambar 26. Penyiapan larutan baku

Gambar 27. Sampel sirup flu dan batuk anak

Gambar 28. Penyaringan larutan

CURRICULUM VITAE

A. Data pribadi

1. Nama : Aliyah Sukma
2. Tempat, tgl. Lahir : Siwa, 22 Mei 2001
3. Alamat : Jl. Politeknik, Tamalanrea
4. Kewarganegaraan : Warga Negara Indonesia

B. Riwayat Pendidikan

1. Tamat SMP tahun 2016 di MTsN 1 Wajo
2. Tamat SMA tahun 2019 di SMAN 6 Wajo

C. Pekerjaan dan Riwayat Pekerjaan

- Jenis pekerjaan : -
- NIP atau identitas lain (NIK) : -
- Pangkat/Jabatan : -

D. Karya ilmiah yang telah dipublikasikan (misalnya pada jurnal):

-

E. Makalah pada Seminar/Konferensi Ilmiah Nasional dan Internasional

-