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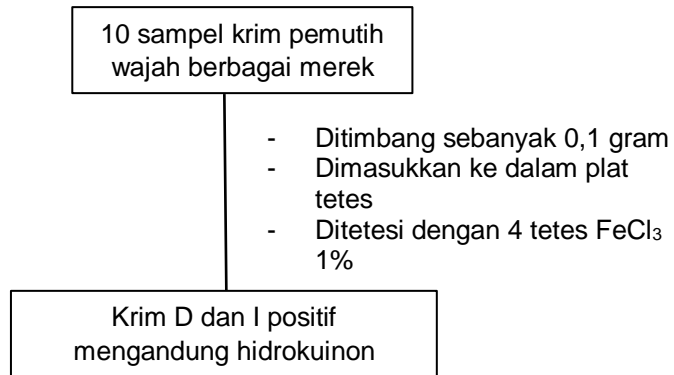
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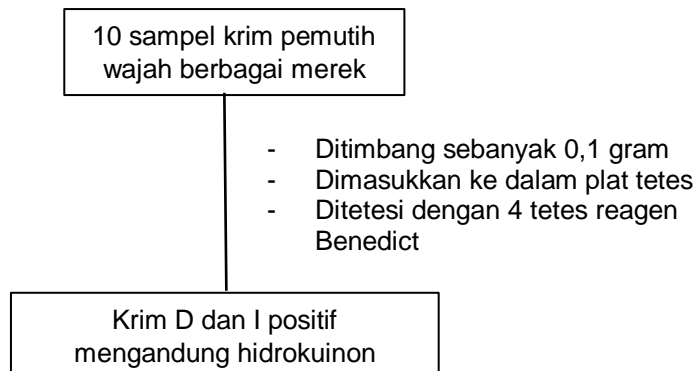
LAMPIRAN

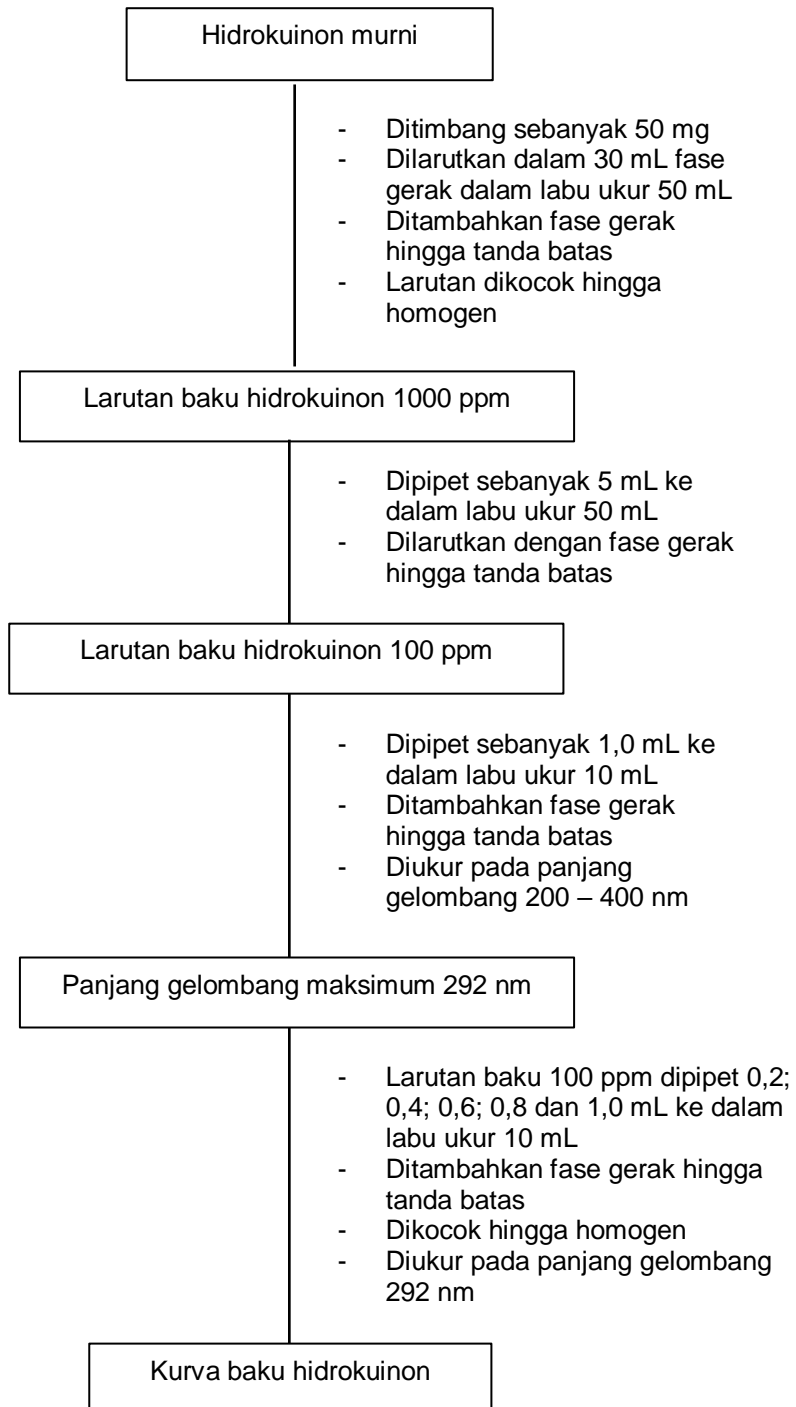
Lampiran 1. Skema kerja

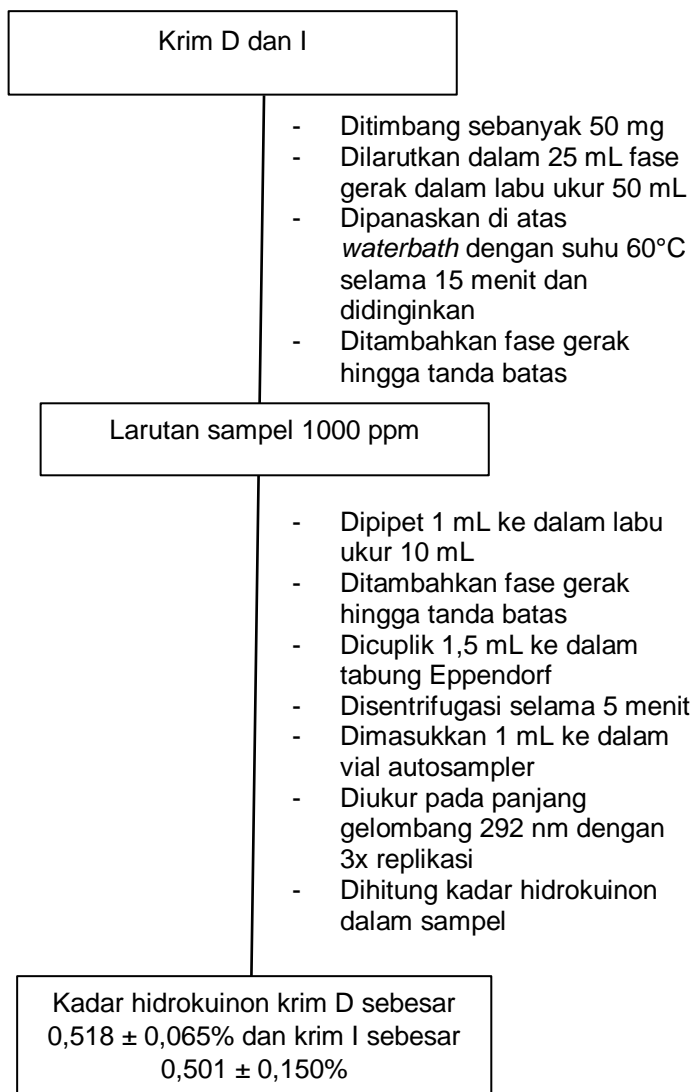
Lampiran 1.1 Uji Reaksi Warna FeCl_3



Lampiran 1.2 Uji Reaksi Warna Reagen Benedict



Lampiran 1.3 Pembuatan Kurva Kalibrasi

Lampiran 1.4 Preparasi Sampel dan Penentuan Kadar

Lampiran 2. Perhitungan

Konsentrasi larutan stok = 1000 ppm

Dibuat konsentrasi 100 ppm:

$$\begin{aligned} M_1V_1 &= M_2V_2 \\ 1000.V_1 &= 100.50 \\ V_1 &= 5 \text{ mL} \end{aligned}$$

2 ppm

$$\begin{aligned} M_1V_1 &= M_2V_2 \\ 100.V_1 &= 2.10 \\ V_1 &= 0,2 \text{ mL} \end{aligned}$$

4 ppm

$$\begin{aligned} M_1V_1 &= M_2V_2 \\ 100.V_1 &= 4.10 \\ V_1 &= 0,4 \text{ mL} \end{aligned}$$

6 ppm

$$\begin{aligned} M_1V_1 &= M_2V_2 \\ 100.V_1 &= 6.10 \\ V_1 &= 0,6 \text{ mL} \end{aligned}$$

8 ppm

$$\begin{aligned} M_1V_1 &= M_2V_2 \\ 100.V_1 &= 8.10 \\ V_1 &= 0,8 \text{ mL} \end{aligned}$$

10 ppm

$$\begin{aligned} M_1V_1 &= M_2V_2 \\ 100.V_1 &= 10.10 \\ V_1 &= 1 \text{ mL} \end{aligned}$$

Perhitungan Konsentrasi dan Persen Kadar

$$y = 157757x - 6083,5$$

$$X = \frac{y-a}{b}$$

Sampel D1

Luas area 76233

$$76233 = 157757x - 6083,5$$

$$x = \frac{76233 + 6083,5}{157757}$$

$$x = 0,522 \text{ mg/L}$$

Sampel D2

Luas area 85525

$$85525 = 157757x - 6083,5$$

$$x = \frac{85525 + 6083,5}{157757}$$

$$x = 0,581 \text{ mg/L}$$

Sampel D3

Luas area 65038

$$65038 = 157757x - 6083,5$$

$$x = \frac{65038 + 6083,5}{157757}$$

$$x = 0,451 \text{ mg/L}$$

Rata-rata konsentrasi sampel D

$$\text{Rata-rata} = \frac{D1 + D2 + D3}{3} = \frac{0,522 + 0,581 + 0,451}{3} = 0,518 \text{ mg/L}$$

%Kadar sampel D

$$\%Kadar = \frac{\text{Konsentrasi} \left(\frac{\text{mg}}{\text{L}}\right) \times V \text{ (L)} \times fp}{\text{Bobot (mg)}} \times 100\%$$

$$\%Kadar = \frac{0,518 \left(\frac{\text{mg}}{\text{L}}\right) \times 0,05 \text{ (L)} \times 10}{50 \text{ (mg)}} \times 100\%$$

$$\%Kadar = 0,518\%$$

Sampel I1

Luas area 97179,2

$$97179,2 = 157757x - 6083,5$$

$$x = \frac{97179,2 + 6083,5}{157757}$$

$$x = 0,655 \text{ mg/L}$$

Sampel I2

Luas area 71669,8

$$71669,8 = 157757x - 6083,5$$

$$x = \frac{71669,8 + 6083,5}{157757}$$

$$x = 0,493 \text{ mg/L}$$

Sampel I3

Luas area 49934,3

$$49934,3 = 157757x - 6083,5$$

$$x = \frac{49934,3 + 6083,5}{157757}$$

$$x = 0,355 \text{ mg/L}$$

Rata-rata konsentrasi sampel I

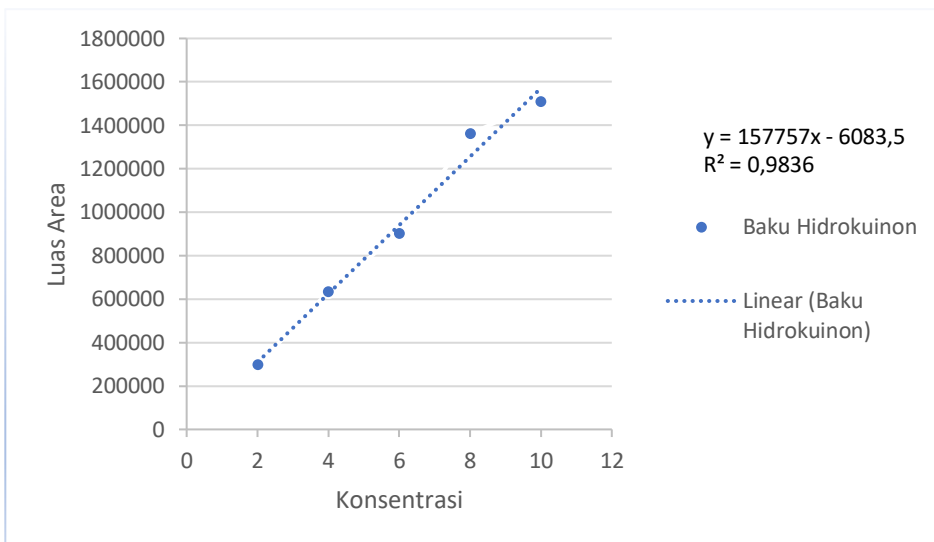
$$\text{Rata-rata} = \frac{I1+I2+I3}{3} = \frac{0,655 + 0,493 + 0,355}{3} = 0,501 \text{ mg/L}$$

%Kadar sampel D

$$\% \text{Kadar} = \frac{\text{Konsentrasi} \left(\frac{\text{mg}}{\text{L}} \right) \times V \text{ (L)} \times fp}{\text{Bobot (mg)}} \times 100\%$$

$$\% \text{Kadar} = \frac{0,501 \left(\frac{\text{mg}}{\text{L}} \right) \times 0,05 \text{ (L)} \times 10}{50 \text{ (mg)}} \times 100\%$$

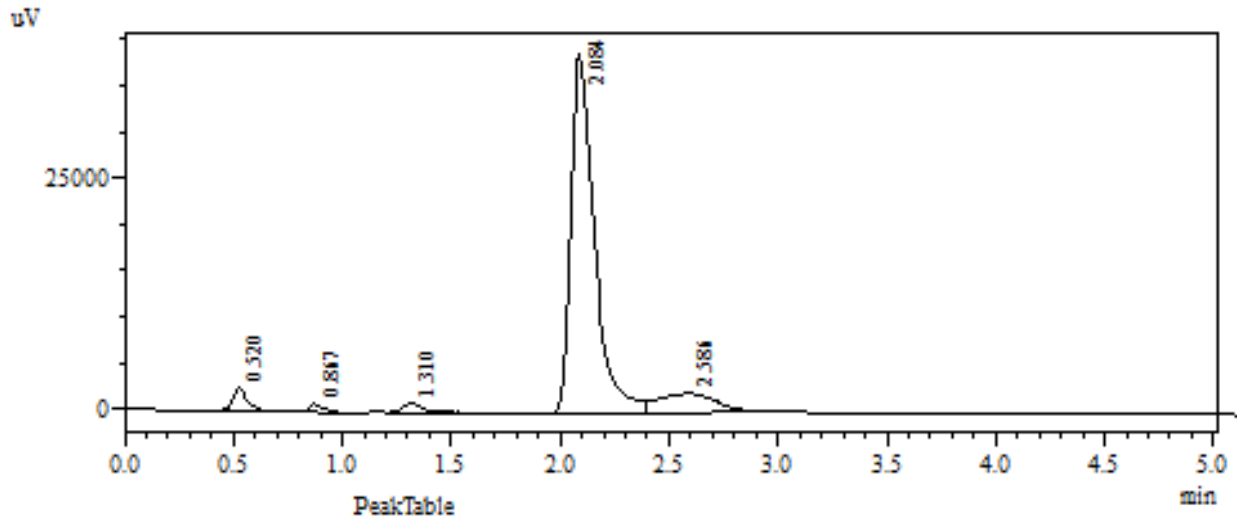
$$\% \text{Kadar} = 0,501\%$$

Lampiran 3. Kurva baku hidrokuinon**Gambar 5. Kurva baku hidrokuinon**

Lampiran 4. Kromatogram

Lampiran 4.1 Baku Hidrokuinon

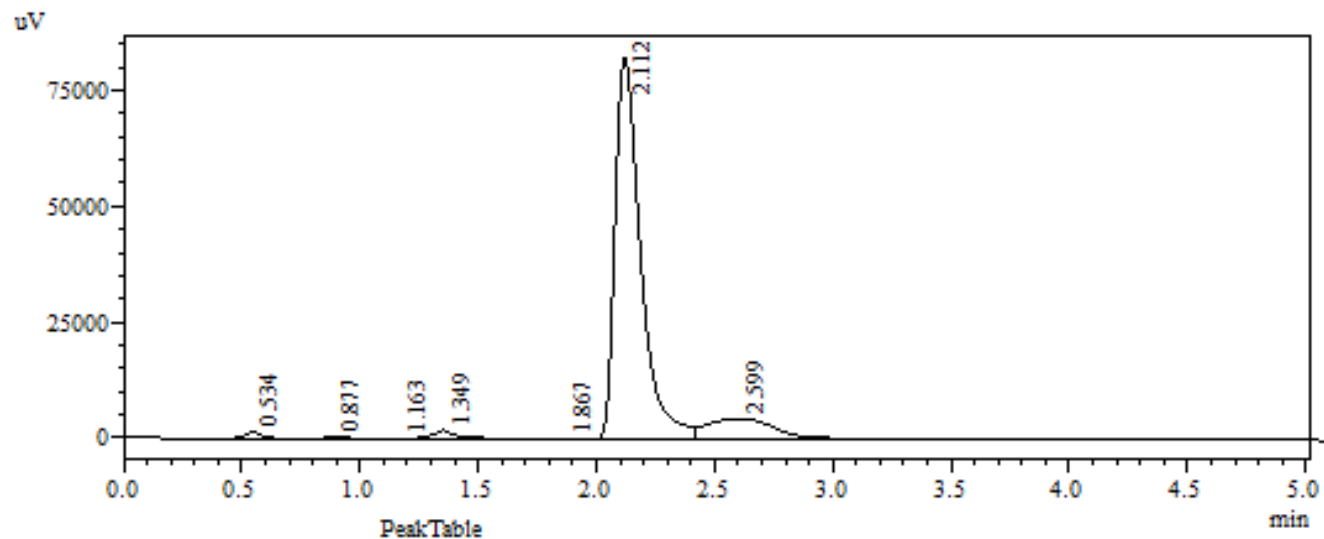
- Baku Hidrokuinon 2 ppm



PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.520	12225	2481	3.414	5.480
2	0.867	4576	908	1.278	2.005
3	1.310	6825	1064	1.906	2.350
4	2.084	296171	38798	82.700	85.686
5	2.586	38329	2028	10.703	4.478
Total		358128	45279	100.000	100.000

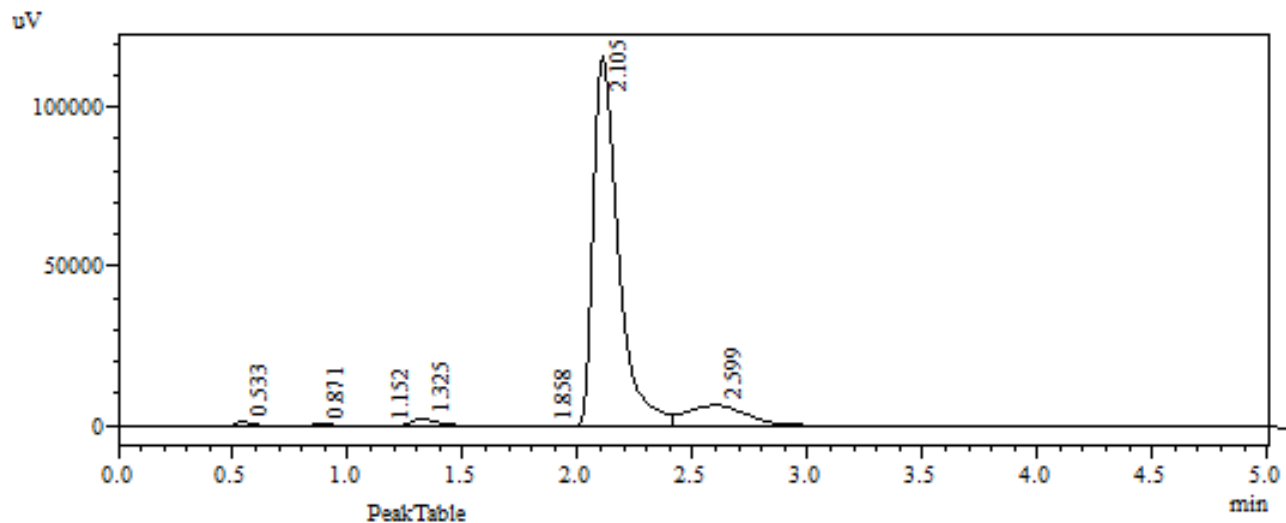
- Baku Hidrokuinon 4 ppm



PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.534	6741	1369	0.903	1.505
2	0.877	3909	675	0.523	0.742
3	1.163	1608	210	0.215	0.231
4	1.349	15179	1897	2.032	2.084
5	1.867	1175	163	0.157	0.179
6	2.112	633498	82213	84.819	90.354
7	2.599	84775	4462	11.350	4.904
Total		746885	90989	100.000	100.000

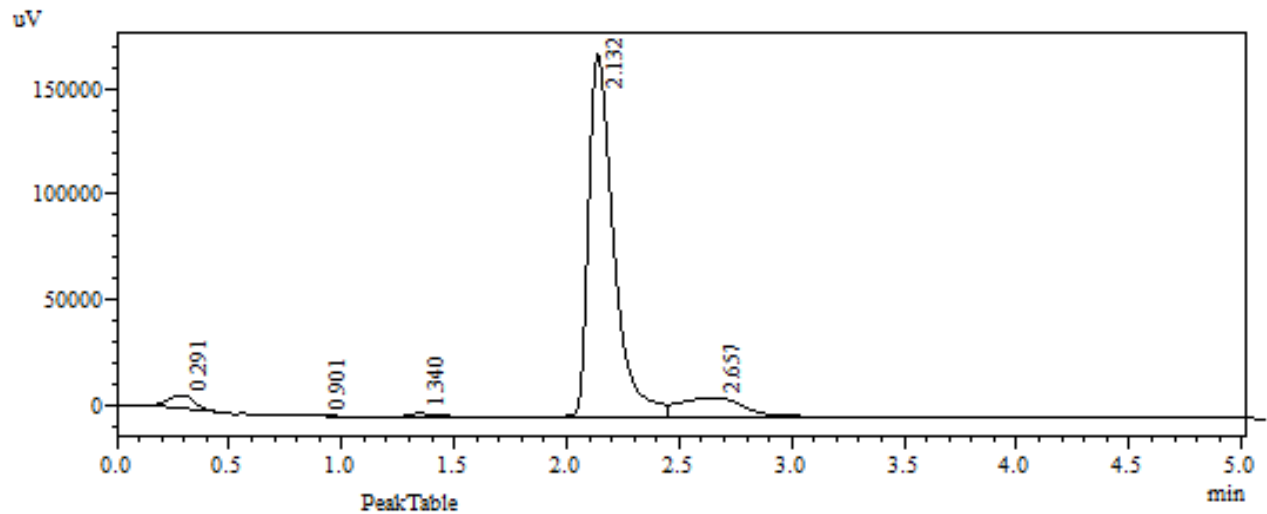
- Baku Hidrokuinon 6 ppm



PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.533	6328	1287	0.601	1.009
2	0.871	3574	670	0.339	0.525
3	1.152	1328	166	0.126	0.130
4	1.325	19952	2525	1.894	1.980
5	1.858	1017	126	0.097	0.099
6	2.105	901534	116285	85.595	91.195
7	2.599	119518	6453	11.348	5.061
Total		1053250	127512	100.000	100.000

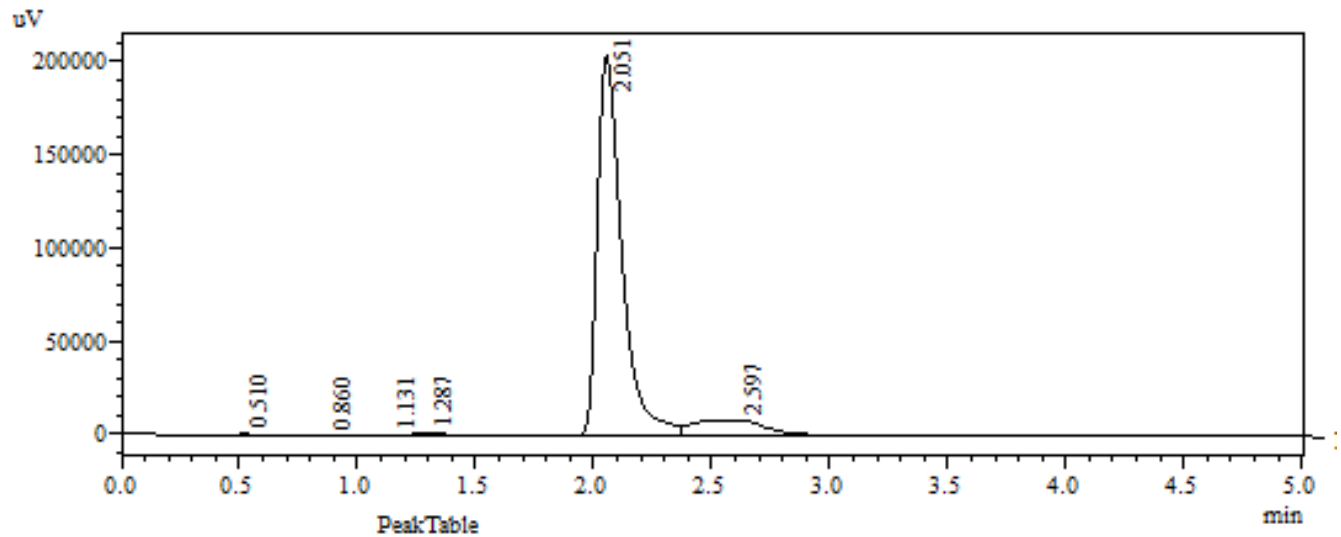
- Baku Hidrokuinon 8 ppm



PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.291	50576	6325	3.172	3.349
2	0.901	1540	314	0.097	0.166
3	1.340	10342	1521	0.649	0.805
4	2.132	1361181	172054	85.359	91.107
5	2.657	171012	8635	10.724	4.572
Total		1594652	188848	100.000	100.000

- Baku Hidrokuinon 10 ppm

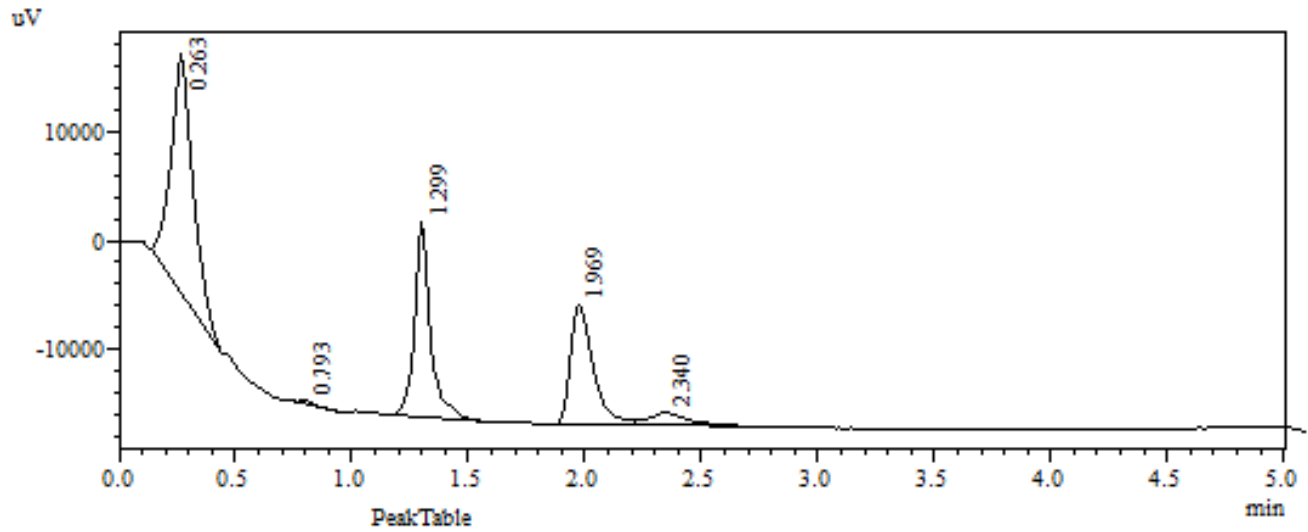


PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.510	2575	525	0.151	0.245
2	0.860	2090	416	0.123	0.194
3	1.131	1893	255	0.111	0.119
4	1.287	12608	1411	0.741	0.658
5	2.051	1509896	203735	88.710	95.028
6	2.597	172995	8052	10.164	3.756
Total		1702057	214395	100.000	100.000

Lampiran 4.2 Sampel Krim Pemutih Wajah

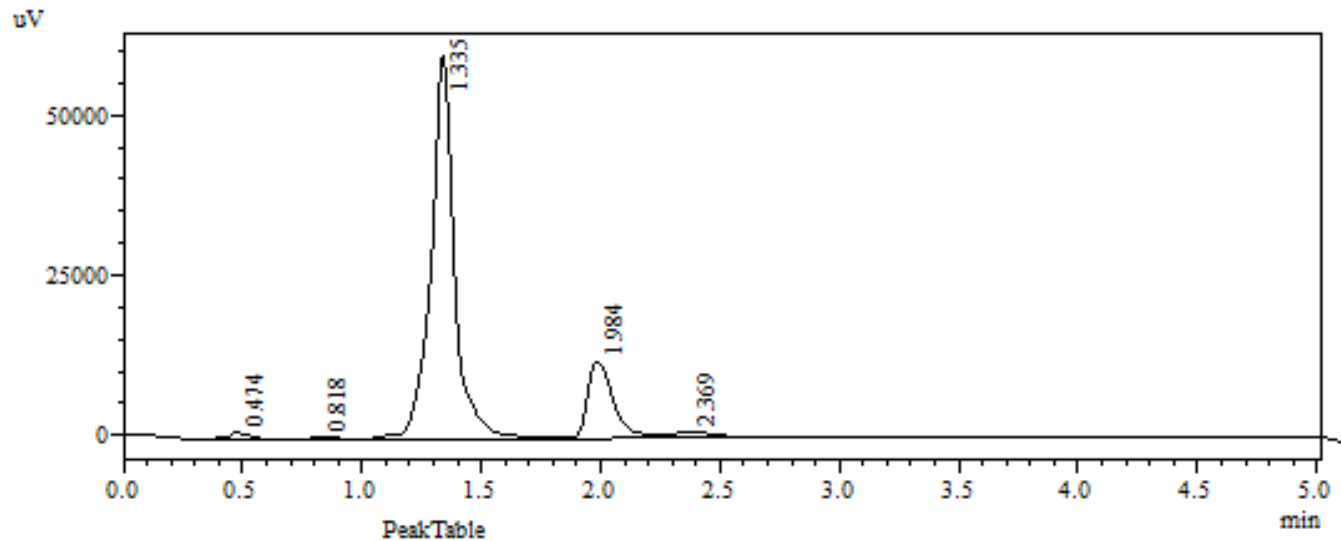
- Sampel Krim D1



PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.263	143957	21666	44.774	41.614
2	0.793	1745	422	0.543	0.810
3	1.299	84079	17864	26.151	34.311
4	1.969	76233	10934	23.710	21.001
5	2.340	15503	1179	4.822	2.264
Total		321518	52065	100.000	100.000

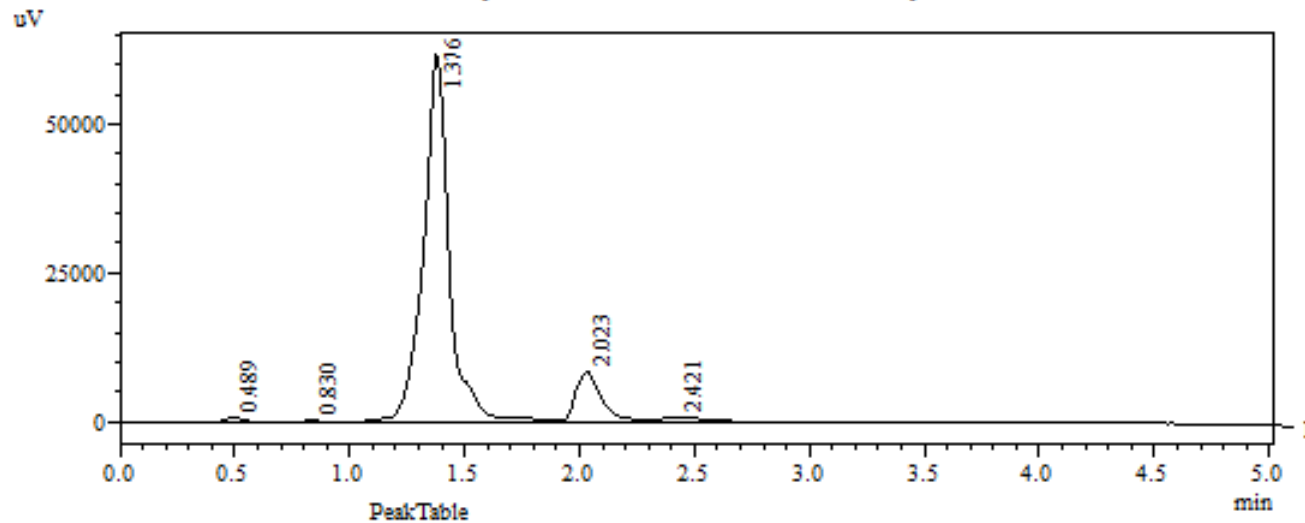
- Sampel Krim D2



PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.474	6082	1068	1.148	1.437
2	0.818	2817	451	0.531	0.607
3	1.335	421503	59818	79.537	80.488
4	1.984	85525	11856	16.138	15.953
5	2.369	14017	1126	2.645	1.516
Total		529943	74320	100.000	100.000

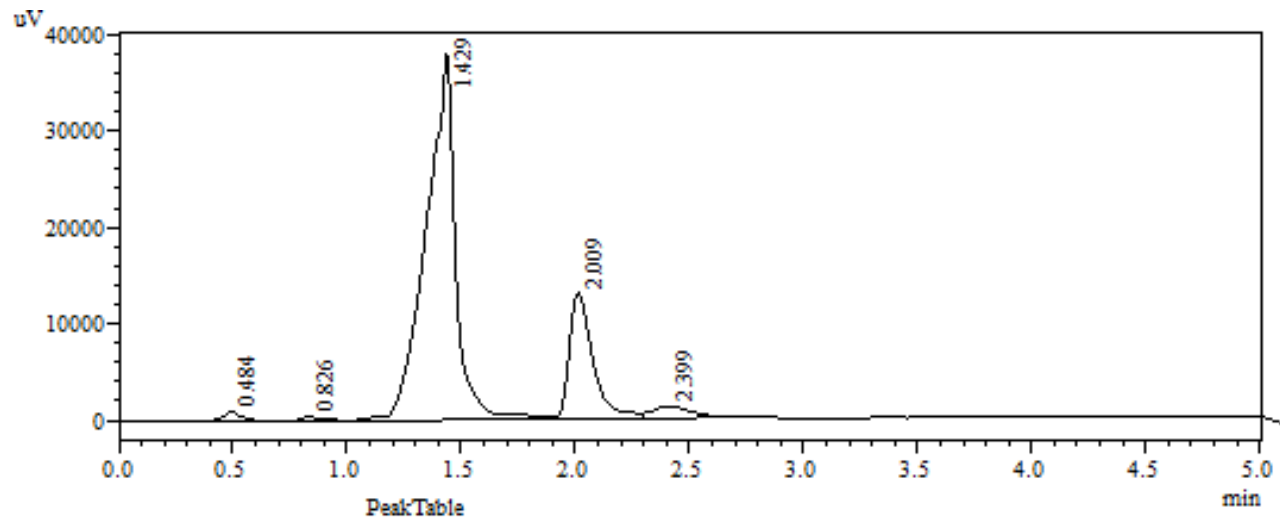
- Sampel Krim D3



PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.489	4832	914	0.838	1.261
2	0.830	2686	375	0.466	0.517
3	1.376	493214	61808	85.575	85.294
4	2.023	65038	8522	11.285	11.760
5	2.421	10581	846	1.836	1.168
Total		576352	72464	100.000	100.000

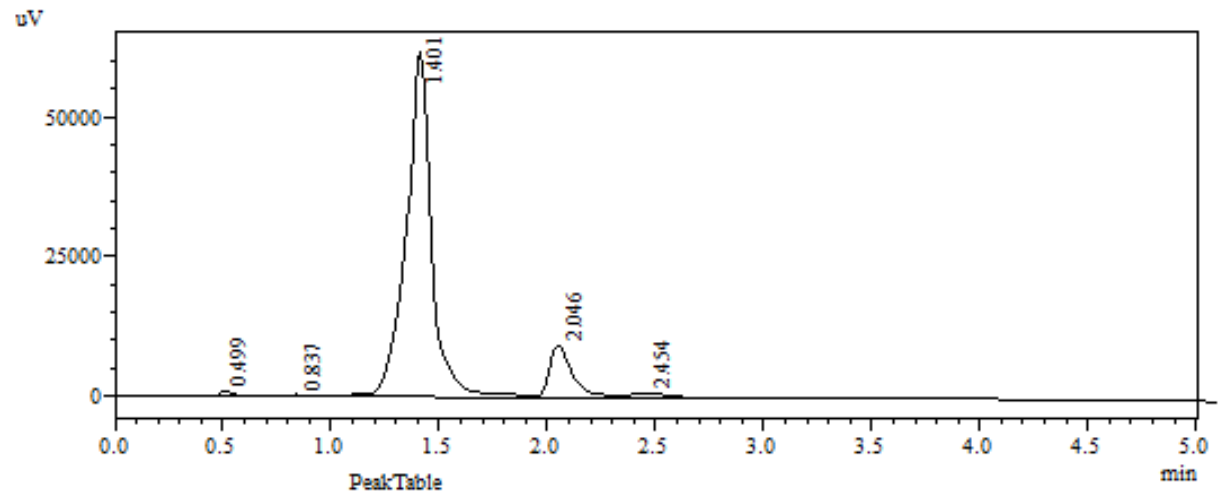
- Sampel Krim I1



PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.484	5180	902	1.139	1.682
2	0.826	2949	402	0.648	0.749
3	1.429	334323	37927	73.503	70.671
4	2.009	97179	13159	21.365	24.519
5	2.399	15213	1277	3.345	2.380
Total		454844	53667	100.000	100.000

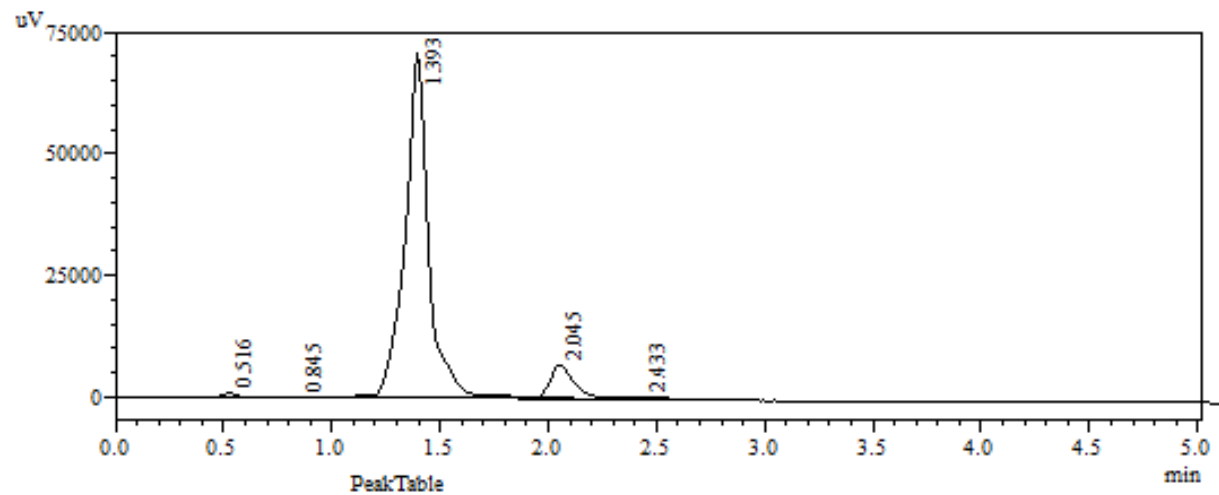
- Sampel Krim I2



PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.499	5006	932	0.845	1.271
2	0.837	2506	383	0.423	0.522
3	1.401	501358	61733	84.629	84.200
4	2.046	71670	9315	12.098	12.705
5	2.454	11878	954	2.005	1.301
Total		592418	73317	100.000	100.000

- Sampel Krim I3



PDA Ch1 292nm 4nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	0.516	4818	913	0.768	1.144
2	0.845	2283	376	0.364	0.471
3	1.393	563732	71045	89.837	89.014
4	2.045	49934	6870	7.958	8.607
5	2.433	6740	610	1.074	0.764
Total		627507	79813	100.000	100.000

Lampiran 5. Dokumentasi



Gambar 6. Pengukuran kurva baku



Gambar 8. Pemanasan larutan sampel



Gambar 7. Sentrifugasi larutan sampel



Gambar 9. Penginjeksian sampel ke vial UFLC



Gambar 11. Load sampel ke dalam autosampler



Gambar 10. Pengukuran kadar hidrokuinon dengan UFLC