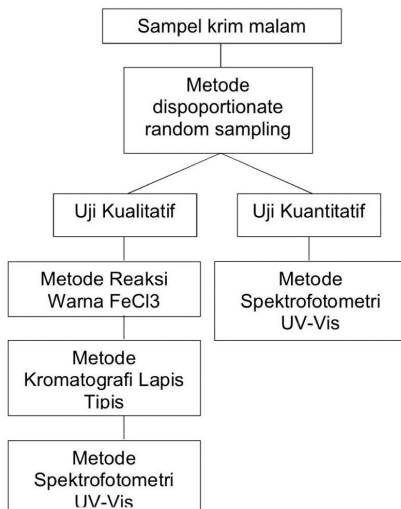
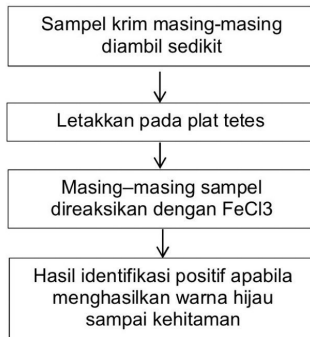


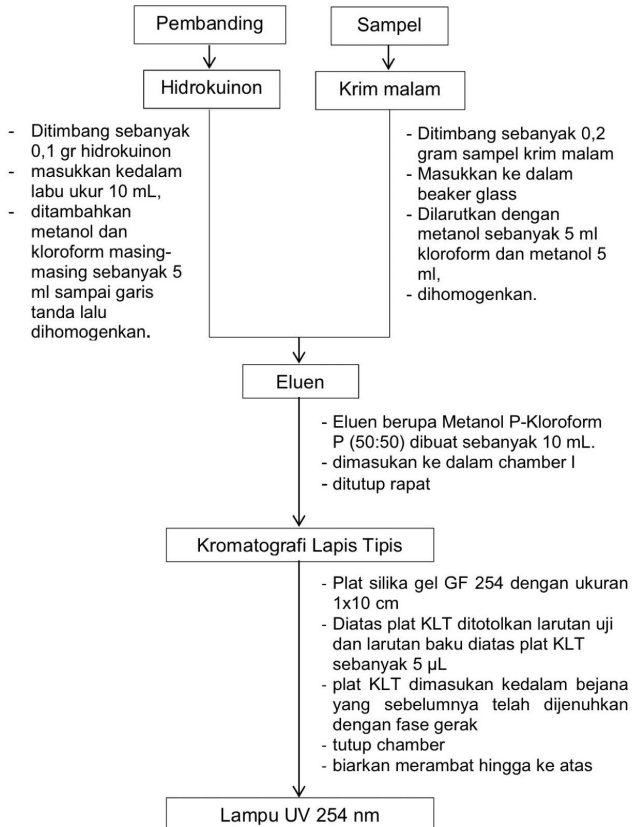
LAMPIRAN**Lampiran 1.** Skema kerja**Gambar 8.** Skema kerja

Lampiran 2. Pengujian dengan Metode Reaksi Warna FeCl_3



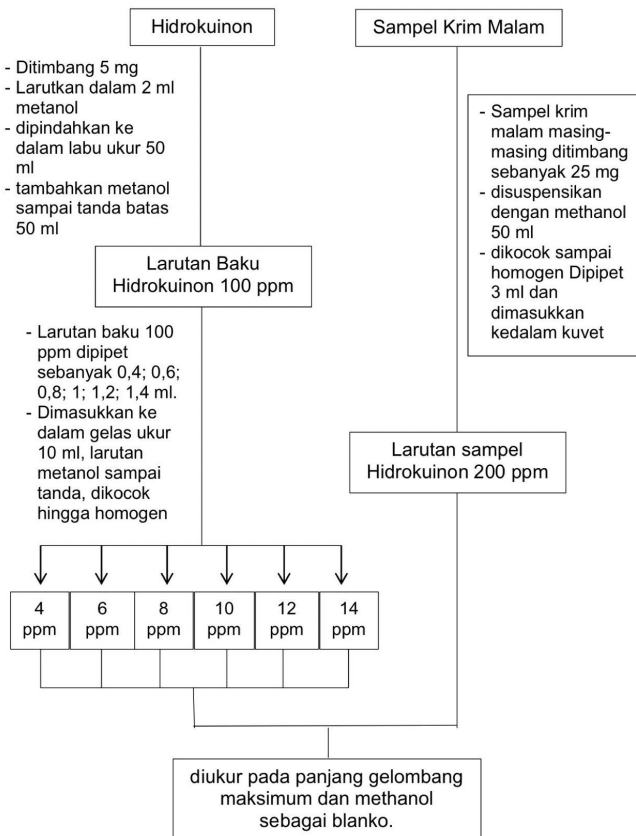
Gambar 9. Skema Kerja Uji Kualitatif dengan pereaksi FeCl_3

Lampiran 3. Skema Kerja Uji Kualitatif dengan KLT



Gambar 10. Skema Kerja Uji Kualitatif dengan KLT

Lampiran 4. Skema Kerja uji kualitatif dan kuantitatif sampel dengan Spektrofotometri UV-Vis



Gambar 11. Skema Kerja uji kualitatif dan kuantitatif sampel dengan Spektrofotometri UV-Vis

Lampiran 5. Perhitungan bahan

Sampel Penelitian

Tabel 7. Sumber data primer krim malam yang beredar di Sidenreng Rappang yang Tidak Memiliki Izin Produksi Oleh BPOM berdasarkan hasil observasi langsung

No	Lokal/Regional	Nasional	Internasional
1.	ZQL Night Cream	Cream SYR Glow	Temulawak Night Cream (Malaysia)
2	CW Serum Night Cream	Beauty Whitening Cream Night	Tabita Night Cream (Malaysia)
3	Elskincare Cream Malam	Krim Pelicin High Dosis (Night Cream)	SJ Malaysia Ori Night Cream
4	Cream Malam As Andalan	NRL Night Cream	Briliant Skincare Ori Filipina Night Cream
5	Krim Flek Night Cream	Natural 99 King Night Cream	Cream Collagen Malaysia Malam
6	Panter Night Cream	Cream Ss Glow Up	ERNA Cream Malam Malaysia
7		FF Night Cream	Meyung Cream Malam (Putih)
8		Lingzhi Night Cream	
9		Wa Beauty Mix Spf	
10		Cream SN Malam	
11		OBS Night Cream	
12		The Face Collagen Night Cream	
13		Cream Khadijah glowNight Cream	
14		SP Whitening	
15		Dwnr Night Cream	
16		SR Night Cream	
17		Beauty Hijau Night Cream	
18		Beauty Whitening Cream Night	
19		AAP3 Night Cream	
20		Lissa Glow	
21		Fassglow	
22		R & D Glow	
23		Premium Glow	

	Booster
24	Cream RR
25	WB Glow Night Cream
26	Acne Glow Night Cream
27	Vichitin Night Cream
28	Cream Baby Pink Sucofindo
29	Bilqis Glow Night Cream

Jumlah Sampel pada masing-masing strata

$$\text{Rumus} = \sqrt{N} + 1$$

$$= \sqrt{42} + 1$$

$$= 6,480 + 1$$

$$= 7,480$$

$$= 7$$

Jumlah sampel yang ditentukan yaitu sebanyak 7 Sampel yang diambil dari setiap kelompok dihitung dengan rumus berikut (Sugiyono, 2013):

$$n = \frac{\text{populasi kelompok (Stratum)}}{\text{jumlah populasi keseluruhan}} \times \text{jumlah sampel yang ditentukan}$$

$$\text{Lokal} = \frac{6}{42} \times 7$$

$$= 1 \text{ sampel}$$

$$\text{Nasional} = \frac{29}{42} \times 7$$

$$= 4,833$$

$$= 5 \text{ sampel}$$

$$\text{Internasional L} = \frac{7}{42} \times 7$$

$$= 1,166$$

$$= 1 \text{ sampel}$$

Perhitungan pembuatan larutan baku standar

Larutan baku dibuat 100 ppm

$$100 \text{ ppm} = \frac{5 \text{ mg}}{0,05 \text{ L}}$$

$$= 100 \text{ ppm}$$

Hidrokuinon standar dibuat dengan 5 mg

Perhitungan pembuatan larutan sampel

$$= \frac{25 \text{ mg}}{0,05 \text{ L}}$$

$$= 500 \text{ ppm}$$

Hidrokuinon standar dibuat dengan 10 mg sampel

Dibuat variasi konsentrasi 4 ppm; 6 ppm; 8 ppm; 10 ppm; 12 ppm dan 14 ppm 40 ppm dalam 10 ml metanol

4 ppm

$$V1 \times N1 = V2 \times N2$$

$$10 \times 100 = V2 \times 1000$$

$$40 = V2 \times 100$$

$$V2 = 40 : 100$$

$$V2 = 0,4 \text{ ml}$$

6 ppm

$$V_1 \times N_1 = V_2 \times N_2$$

$$10 \times 6 = V_2 \times 100$$

$$60 = V_2 \times 100$$

Lanjutan

$$V_2 = 60 : 100$$

$$V_2 = 0,6 \text{ ml}$$

10 ppm

$$V_1 \times N_1 = V_2 \times N_2$$

$$10 \times 10 = V_2 \times 100$$

$$100 = V_2 \times 100$$

$$V_2 = 100 : 100$$

$$V_2 = 1 \text{ ml}$$

12 ppm

$$V_1 \times N_1 = V_2 \times N_2$$

$$10 \times 12 = V_2 \times 100$$

$$120 = V_2 \times 100$$

$$V_2 = 120 : 100$$

$$V_2 = 1,2 \text{ ml}$$

14 ppm

$$V_1 \times N_1 = V_2 \times N_2$$

$$10 \times 14 = V_2 \times 100$$

$$140 = V_2 \times 100$$

$$V_2 = 140 : 100$$

$$V_2 = 1,4 \text{ ml}$$

Perhitungan nilai Rf KLT

$$R_f = \frac{\text{Jarak yang ditempuh substansi}}{\text{jarak yang ditempuh pelarut}}$$

Dimana jarak yang ditempuh pelarut yaitu

$$= 10 \text{ cm} - (1 \text{ cm} + 0,5 \text{ cm})$$

$$= 10 \text{ cm} - 1,5 \text{ cm}$$

$$= 8,5 \text{ cm}$$

Sampel Pembanding Hidrokuinon

$$R_f = \frac{\text{Jarak yang ditempuh substansi}}{\text{jarak yang ditempuh pelarut}}$$

$$R_f = \frac{5,5}{8,5 \text{ cm}}$$

$$R_f = 0,647$$

Sampel Krim U

$$R_f = \frac{\text{Jarak yang ditempuh substansi}}{\text{jarak yang ditempuh pelarut}}$$

$$R_f = \frac{5,7}{8,5 \text{ cm}}$$

$$R_f = 0,670$$

Sampel Krim F1

$$R_f = \frac{\text{Jarak yang ditempuh substansi}}{\text{jarak yang ditempuh pelarut}}$$

$$R_f = \frac{5,6}{8,5 \text{ cm}}$$

$$R_f = 0,658$$

Sampel Krim F2

$$R_f = \frac{\text{Jarak yang ditempuh substansi}}{\text{jarak yang ditempuh pelarut}}$$

$$R_f = \frac{5,6}{8,5 \text{ cm}}$$

$$R_f = 0,658$$

Sampel Krim F3

$$R_f = \frac{\text{Jarak yang ditempuh substansi}}{\text{jarak yang ditempuh pelarut}}$$

$$R_f = \frac{5,7}{8,5 \text{ cm}}$$

$$R_f = 0,670$$

Sampel Krim F4

$$R_f = \frac{\text{Jarak yang ditempuh substansi}}{\text{jarak yang ditempuh pelarut}}$$

$$R_f = \frac{5,6}{8,5 \text{ cm}}$$

$$R_f = 0,658$$

Sampel Krim F5

$$R_f = \frac{\text{Jarak yang ditempuh substansi}}{\text{jarak yang ditempuh pelarut}}$$

$$R_f = \frac{5,6}{8,5 \text{ cm}}$$

$$R_f = 0,658$$

Sampel Krim I

$$R_f = \frac{\text{Jarak yang ditempuh substansi}}{\text{jarak yang ditempuh pelarut}}$$

$$R_f = \frac{5,5}{8,5 \text{ cm}}$$

$$R_f = 0,647$$

Perhitungan Kadar Hhidrokuinon

Hasil persamaan regresi diperoleh:

$$Y = ax + b$$

$$y = 0,0407x + 0,0334$$

Persamaan kadar sampel menggunakan persamaan Lambert Beer:

$$\% \text{ kadar} = \frac{x \text{ (ppm)} \cdot \text{pelarut (L)} \cdot F_p}{\text{Bobot Sampel}} \times 100\%$$

Sampel Krim U

$$Y = ax + b$$

$$y = 0,0407x + 0,0334$$

$$x = \frac{y - 0,0334}{0,0407}$$

$$x = \frac{0,095 - 0,0334}{0,0407}$$

$$x = \frac{0,0616}{0,0407}$$

$$x = 1,513 \text{ ppm}$$

$$\% \text{ kadar} = \frac{x \text{ (ppm)} \cdot (\text{pelarut (L)} \cdot F_p)}{\text{Bobot Sampel}} \times 100\%$$

$$\% \text{ kadar} = \frac{1,513 \cdot 0,05 \text{ L} \cdot 1}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = \frac{0,075}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = 0,003\%$$

Sampel Krim F1

$$Y = ax + b$$

$$y = 0,0407x + 0,0334$$

$$x = \frac{y - 0,0334}{0,0407}$$

$$x = \frac{0,211 - 0,0334}{0,0407}$$

$$x = \frac{0,1776}{0,0407}$$

$$x = 4,363 \text{ ppm}$$

$$\% \text{ kadar} = \frac{4,363 \cdot 0,05 \text{ L} \cdot 1}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = \frac{0,218}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = 0,008\%$$

Sampel Krim F2

$$Y = ax + b$$

$$y = 0,0407x + 0,0334$$

$$x = \frac{y - 0,0334}{0,0407}$$

$$x = \frac{0,406 - 0,0334}{0,0407}$$

$$x = \frac{0,3726}{0,0407}$$

$$x = 9,154 \text{ ppm}$$

$$\% \text{ kadar} = \frac{9,154 \cdot 0,05 \text{ L} \cdot 1}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = \frac{0,457}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = 0,018\%$$

Sampel Krim F3

$$Y = ax + b$$

$$y = 0,0407x + 0,0334$$

$$x = \frac{y - 0,0334}{0,0407}$$

$$x = \frac{0,451 - 0,0334}{0,0407}$$

$$x = \frac{0,4176}{0,0407}$$

$$x = 10,260 \text{ ppm}$$

$$\% \text{ kadar} = \frac{10,260 \cdot 0,05 \text{ L} \cdot 1}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = \frac{0,513}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = 0,020\%$$

Sampel Krim F4

$$Y = ax + b$$

$$y = 0,0407x + 0,0334$$

$$x = \frac{y - 0,0334}{0,0407}$$

$$x = \frac{0,439 - 0,0334}{0,0407}$$

$$x = \frac{0,4056}{0,0407}$$

$$x = 9,965 \text{ ppm}$$

$$\% \text{ kadar} = \frac{9,965 \cdot 0,05 \text{ L} \cdot 1}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = \frac{0,498}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = 0,019\%$$

Sampel Krim F5

$$Y = ax + b$$

$$y = 0,0407x + 0,0334$$

$$x = \frac{y - 0,0334}{0,0407}$$

$$x = \frac{0,395 - 0,0334}{0,0407}$$

$$x = \frac{0,3616}{0,0407}$$

$$x = 8,884 \text{ ppm}$$

$$\% \text{ kadar} = \frac{8,884 \cdot 0,05 \text{ L} \cdot 1}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = \frac{0,444}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = 0,017\%$$

Sampel Krim I

$$Y = ax + b$$

$$y = 0,0407x + 0,0334$$

$$x = \frac{y - 0,0334}{0,0407}$$

$$x = \frac{0,481 - 0,0334}{0,0407}$$

$$x = \frac{0,4476}{0,0407}$$

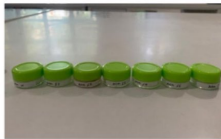
$$x = 10,997 \text{ ppm}$$

$$\% \text{ kadar} = \frac{10,997 \cdot 0,05 \text{ L} \cdot 1}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = \frac{0,549}{25 \text{ mg}} \times 100\%$$

$$\% \text{ kadar} = 0,021\%$$

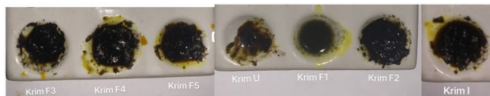
Lampiran 6. Foto-foto Pendukung



Gambar 12. Foto Sampel Krim U, F1, F2, F3, F4, F5 dan I



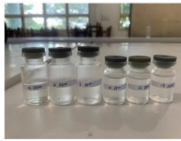
Gambar 13. Foto Timbangan Analitik



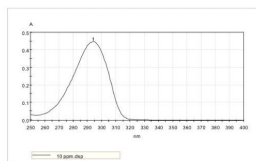
Gambar 14. Hasil uji Kualitatif dengan pereaksi FeCl_3 Sampel Krim U, F1, F2, F3, F4, F5 dan I



Gambar 15. Foto spektrofotometri uv-vis



Gambar 16. Foto larutan kurva standar konsentrasi 4, 6, 8, 10, 12, 14 ppm



Gambar 17. Hasil pengukuran larutan kurva standar konsentrasi 10 ppm pada spektrofotometri UV-Vis



Gambar 18. Foto larutan sampel krim U, F1, F2, F3, F4, F5 dan I