

LAMPIRAN

Lampiran 1. Perhitungan

a) Rendemen Ekstrak

$$\% \text{Rendemen Ekstrak} = \frac{\text{bobot total ekstrak}}{\text{bobot total simplisia}} \times 100$$

$$\% \text{Rendemen Ekstrak} = \frac{5,33 \text{ gram}}{200 \text{ gram}} \times 100$$

$$\% \text{Rendemen Ekstrak} = 2,66 \%$$

b) Perhitungan Konsentrasi Larutan

$$1. \text{ Konsentrasi} = \frac{\text{massa zat terlarut (mg)}}{\text{volume larutan (l)}}$$

$$\text{Konsentrasi} = \frac{4 \text{ mg}}{0,02 \text{ l}}$$

$$\text{Konsentrasi} = 200 \text{ ppm}$$

$$2. \text{ Konsentrasi} = \frac{\text{massa zat terlarut (mg)}}{\text{volume larutan (l)}}$$

$$\text{Konsentrasi} = \frac{6 \text{ mg}}{0,02 \text{ l}}$$

$$\text{Konsentrasi} = 300 \text{ ppm}$$

$$3. \text{ Konsentrasi} = \frac{\text{massa zat terlarut (mg)}}{\text{volume larutan (l)}}$$

$$\text{Konsentrasi} = \frac{8 \text{ mg}}{0,02 \text{ l}}$$

$$\text{Konsentrasi} = 400 \text{ ppm}$$

$$4. \text{ Konsentrasi} = \frac{\text{massa zat terlarut (mg)}}{\text{volume larutan (l)}}$$

$$\text{Konsentrasi} = \frac{10 \text{ mg}}{0,02 \text{ l}}$$

$$\text{Konsentrasi} = 500 \text{ ppm}$$

5. $\text{Konsentrasi} = \frac{\text{massa zat terlarut (mg)}}{\text{volume larutan (l)}}$

$$\text{Konsentrasi} = \frac{12 \text{ mg}}{0,02 \text{ l}}$$

$$\text{Konsentrasi} = 600 \text{ ppm}$$



c) Perhitungan Nilai SPF

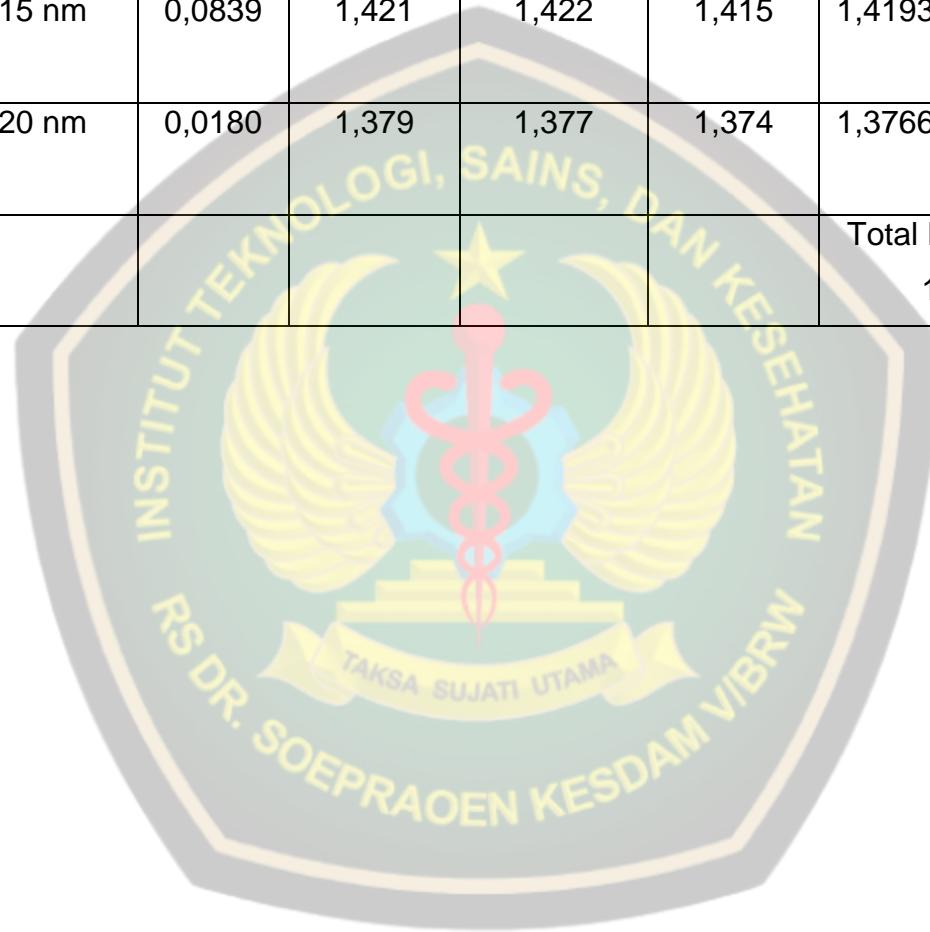
Bobot (mg)	Konsentrasi (ppm)	Panjang Gelombang (nm)	EE x I	Abs Pertama	Abs Kedua	Abs Ketiga	Rata-rata Abs	EE x I x Abs	CF	Nilai SPF
4 mg	200 ppm	290 nm	0,0150	0,597	0,597	0,596	0,596667	0,00895	10	5,1
		295 nm	0,0817	0,564	0,564	0,563	0,563667	0,046052		
		300 nm	0,2874	0,535	0,534	0,534	0,534333	0,153567		
		305 nm	0,3278	0,508	0,508	0,507	0,507667	0,166413		
		310 nm	0,1864	0,488	0,487	0,487	0,487333	0,090839		
		315 nm	0,0839	0,471	0,470	0,471	0,470667	0,039489		
		320 nm	0,0180	0,454	0,454	0,455	0,454333	0,008178		
							Total EE x I x Abs =			

							0,513488			
6 mg	300 ppm	290 nm	0,0150	0,939	0,939	0,938	0,938667	0,01408	10	8,1
		295 nm	0,0817	0,890	0,889	0,888	0,8890	0,072631		
		300 nm	0,2874	0,846	0,846	0,845	0,845667	0,243045		
		305 nm	0,3278	0,808	0,807	0,807	0,807333	0,264644		
		310 nm	0,1864	0,779	0,779	0,779	0,779	0,145206		
		315 nm	0,0839	0,758	0,759	0,758	0,758333	0,063624		
		320 nm	0,0180	0,738	0,739	0,738	0,738333	0,01329		
							Total EE x l x Abs = 0,81652			
8 mg	400 ppm	290 nm	0,0150	0,989	0,990	0,989	0,989333	0,01484	10	8,6

		295 nm	0,0817	0,936	0,936	0,936	0,936	0,076471		
		300 nm	0,2874	0,892	0,892	0,892	0,892	0,256361		
		305 nm	0,3278	0,852	0,853	0,853	0,852667	0,279504		
		310 nm	0,1864	0,825	0,823	0,824	0,824	0,153594		
		315 nm	0,0839	0,806	0,803	0,804	0,804333	0,067484		
		320 nm	0,0180	0,788	0,785	0,786	0,786333	0,014862		
							Total EE x l x Abs = 0,863115			
10 mg	500 ppm	290 nm	0,0150	1,542	1,541	1,539	1,540667	0,02311	10	13,2
		295 nm	0,0817	1,456	1,458	1,452	1,455333	0,118901		
		300 nm	0,2874	1,38	1,38	1,378	1,379333	0,39642		

		305 nm	0,3278	1,311	1,311	1,309	1,310333	0,429527		
		310 nm	0,1864	1,256	1,257	1,259	1,257333	0,234367		
		315 nm	0,0839	1,216	1,217	1,215	1,216	0,102022		
		320 nm	0,0180	1,178	1,178	1,178	1,178	0,021204		
							Total EE x l x Abs = 1,325552			
12 mg	600 ppm	290 nm	0,0150	1,8	1,797	1,793	1,796667	0,02695	10	15,4
		295 nm	0,0817	1,701	1,701	1,698	1,7	0,13889		
		300 nm	0,2874	1,621	1,612	1,609	1,614	0,463864		
		305 nm	0,3278	1,533	1,532	1,528	1,531	0,501862		

		310 nm	0,1864	1,472	1,473	1,468	1,471	0,274194		
		315 nm	0,0839	1,421	1,422	1,415	1,419333	0,119082		
		320 nm	0,0180	1,379	1,377	1,374	1,376667	0,02478		
								Total EE x l x Abs = 1,549622		

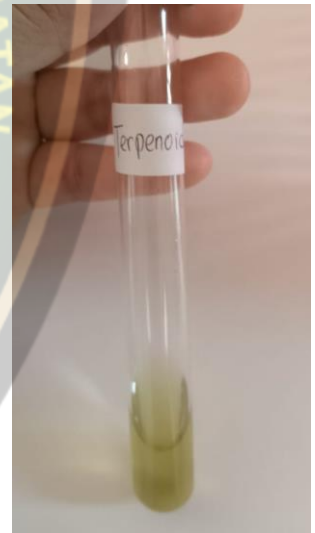


**Lampiran 2.
Skrining**

**Hasil
Fitokimia**



Uji Alkaloid



Uji Flavanoid

Uji Saponin

Uji Terpenoid



Uji Tanin

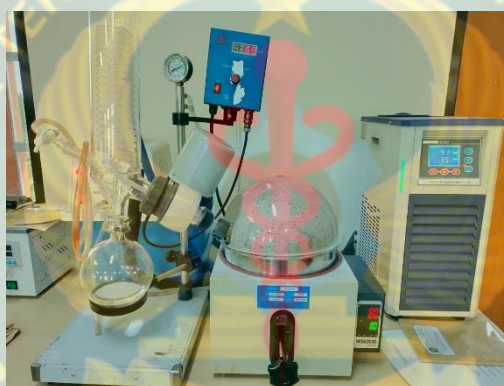


Uji Antrakuinon

Lampiran 3. Dokumentasi



Persiapan Pembuatan Simplisia



Pembuatan Ekstrak Daun Kale Keriting



Penimbangan Sampel



Sampel Nilai SPF Ekstrak Daun Kale Keriting

