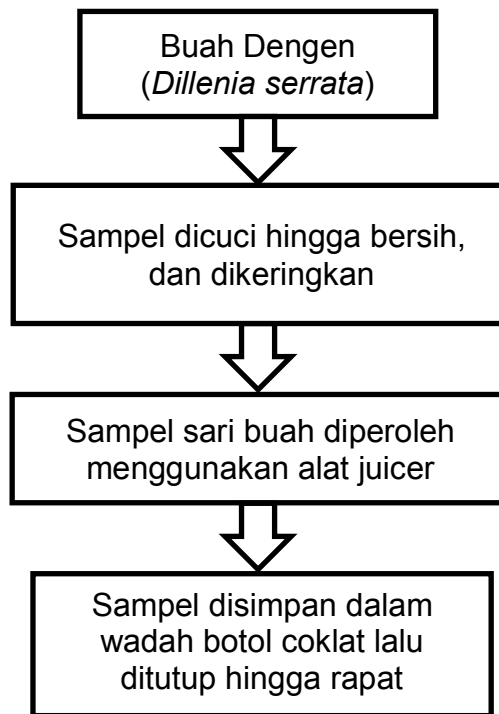


## LAMPIRAN

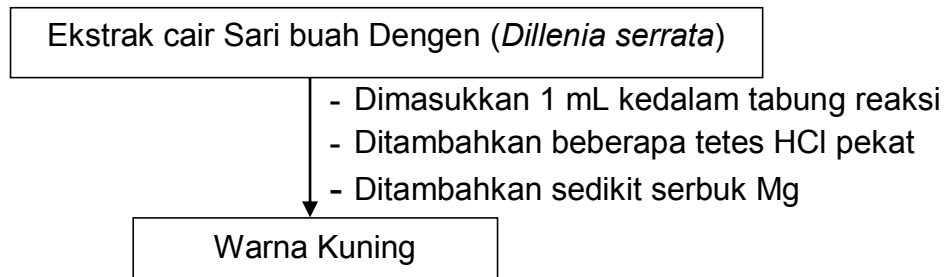
### Lampiran 1. Skema Kerja

#### 1. Pengolahan Sampel

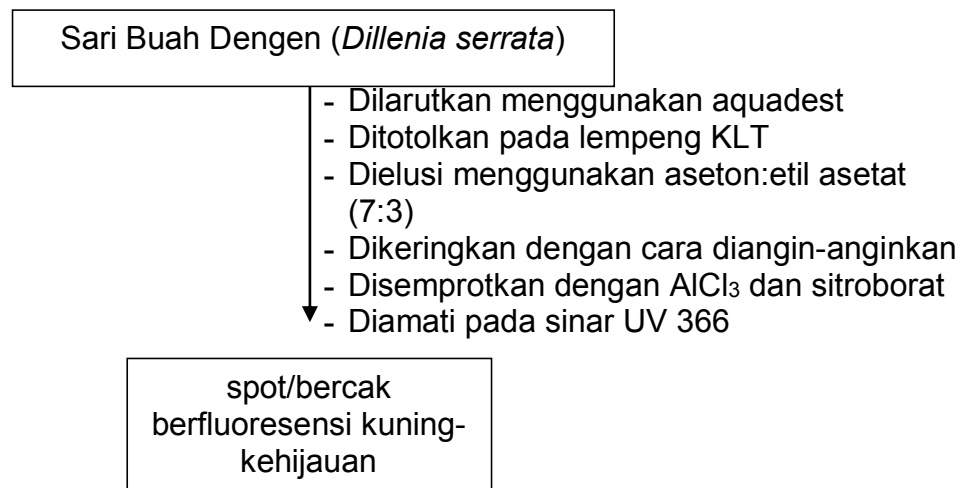


## 2. Uji Kualitatif Senyawa Flavonoid

### a. Wilstater



### b. Lempeng KLT

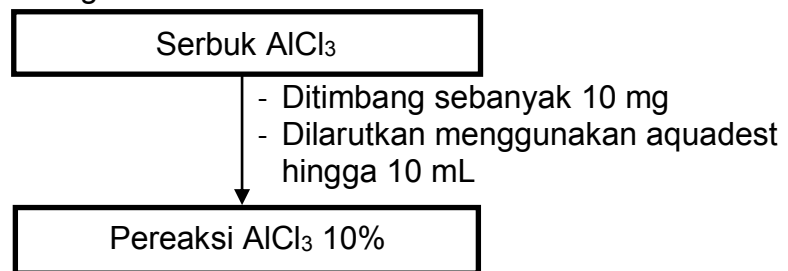


### 3. Penetapan Kadar Flavono

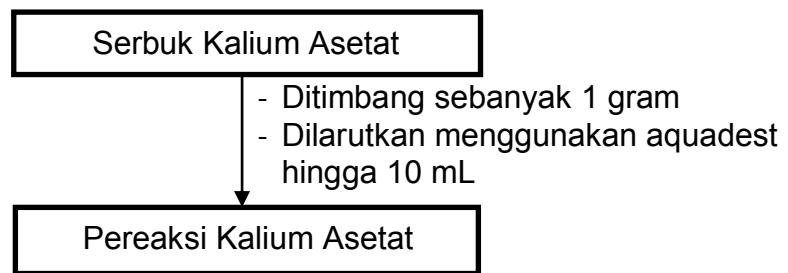
#### 4. id Total Sampel dan Baku Kuersetin

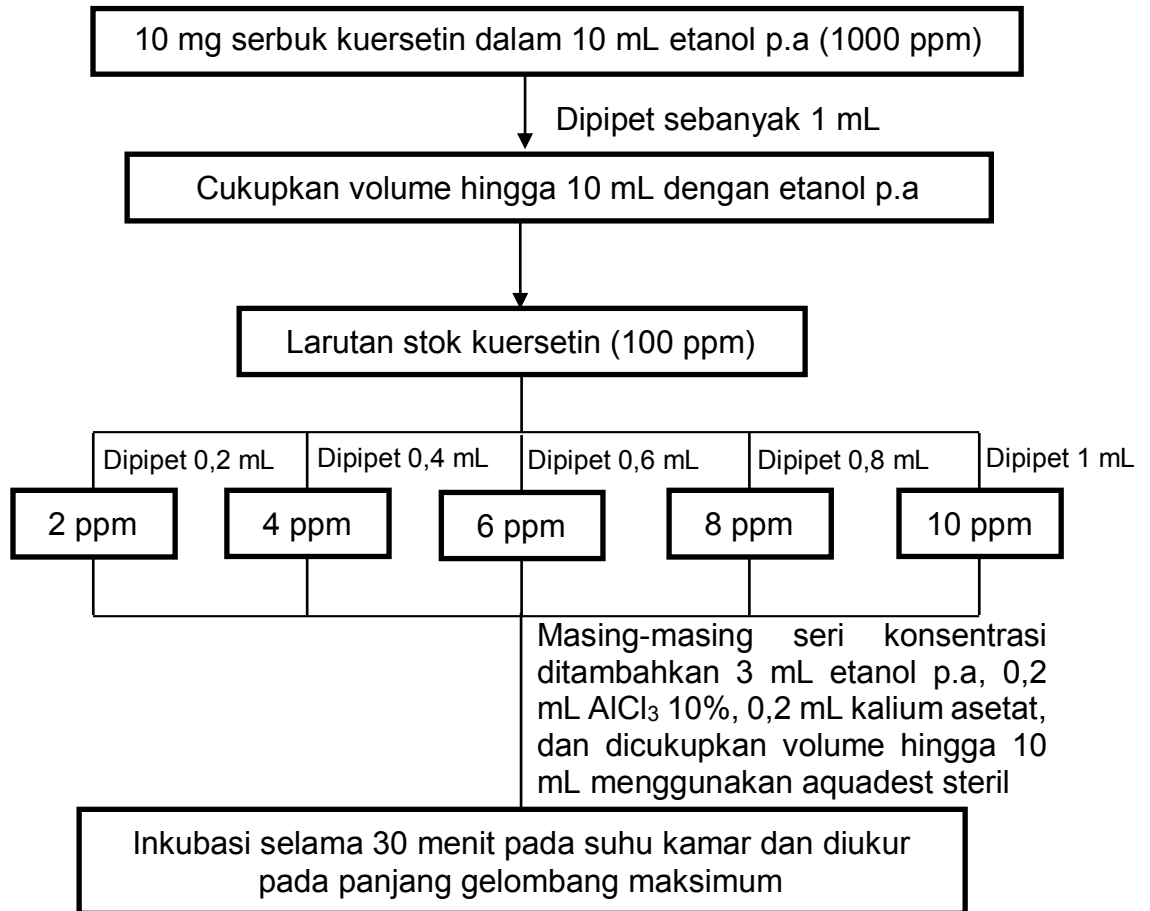
##### a. Pembuatan Larutan Pereaksi dan Standar

###### a) Pembuatan Reagen $\text{AlCl}_3$ 10%

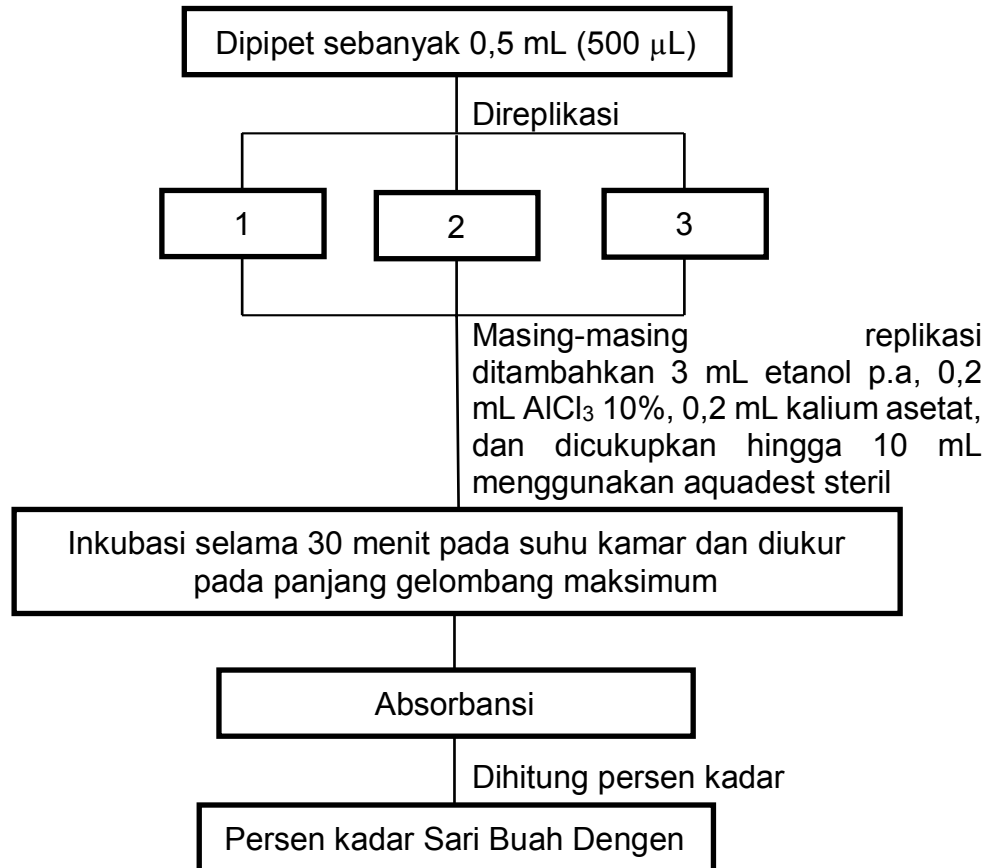


###### b) Pembuatan Kalium Asetat



**b. Penentuan Kurva Baku Kuersetin**

c. Penetapan Kadar Flavonoid Total Sari Buah Dengan (*Dillenia serrata*)



## Lampiran 2. Perhitungan

### a. Nilai Rf

$$Rf = \frac{\text{Jarak Tempuh Noda}}{\text{Jarak Tempuh Eluen}} = \frac{3.5}{5.5} = 0,636$$

### b. Pengenceran dan Pembuatan Seri Konsentrasi

#### – Pengenceran 2 ppm

$$\text{Dik : } V_2 = 10 \text{ mL} \qquad C_2 = 2 \text{ ppm}$$

$$C_1 = 100 \text{ ppm}$$

$$\text{Dit : } V_1 = \dots\dots\dots?$$

Penyelesaian :

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 100 \text{ ppm} = 10 \cdot 2 \text{ ppm}$$

$$V_1 = \frac{10 \text{ mL} \cdot 2 \text{ ppm}}{100 \text{ ppm}}$$

$$100 \text{ ppm}$$

$$V_1 = 0,2 \text{ mL} \longrightarrow 200 \mu\text{L}$$

#### – Pengenceran 4 ppm

$$\text{Dik : } V_2 = 10 \text{ mL} \qquad C_2 = 4 \text{ ppm}$$

$$C_1 = 100 \text{ ppm}$$

$$\text{Dit : } V_1 = \dots\dots\dots?$$

Penyelesaian :

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 100 \text{ ppm} = 10 \cdot 4 \text{ ppm}$$

$$V_1 = \frac{10 \text{ mL} \cdot 4 \text{ ppm}}{100 \text{ ppm}}$$

$$100 \text{ ppm}$$

$$V_1 = 0,4 \text{ mL} \longrightarrow 400 \mu\text{L}$$

#### – Pengenceran 6 ppm

$$\text{Dik : } V_2 = 10 \text{ mL} \qquad C_2 = 6 \text{ ppm}$$

$$C_1 = 100 \text{ ppm}$$

$$\text{Dit : } V_1 = \dots\dots\dots?$$

Penyelesaian :

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 100 \text{ ppm} = 10 \cdot 6 \text{ ppm}$$

$$V_1 = \frac{10 \text{ mL} \cdot 6 \text{ ppm}}{100 \text{ ppm}}$$

$$V_1 = 0,6 \text{ mL} \longrightarrow 600 \mu\text{L}$$

– **Pengenceran 8 ppm**

Dik :  $V_2 = 10 \text{ mL}$   $C_2 = 8 \text{ ppm}$

$$C_1 = 100 \text{ ppm}$$

Dit :  $V_1 = \dots\dots\dots?$

Penyelesaian :

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 100 \text{ ppm} = 10 \cdot 8 \text{ ppm}$$

$$V_1 = \frac{10 \text{ mL} \cdot 8 \text{ ppm}}{100 \text{ ppm}}$$

$$V_1 = 0,8 \text{ mL} \longrightarrow 800 \mu\text{L}$$

– **Pengenceran 10 ppm**

Dik :  $V_2 = 10 \text{ mL}$   $C_2 = 10 \text{ ppm}$

$$C_1 = 100 \text{ ppm}$$

Dit :  $V_1 = \dots\dots\dots?$

Penyelesaian :

$$V_1 \cdot C_1 = V_2 \cdot C_2$$

$$V_1 \cdot 100 \text{ ppm} = 10 \cdot 10 \text{ ppm}$$

$$V_1 = \frac{10 \text{ mL} \cdot 10 \text{ ppm}}{100 \text{ ppm}}$$

$$V_1 = 1 \text{ mL} \longrightarrow 1000 \mu\text{L}$$

**c. Perhitungan Kadar Flavonoid Total Sampel Terhadap Kuersetin**

**Replikasi 1**

$$y = 0,0704x - 0,027$$

$$0,643 = 0,0704x - 0,027$$

$$0,643 + 0,027 = 0,0704x$$

$$0,67 = 0,0704x$$

$$x = \frac{0,67}{0,0704} \quad x = 9,517 \mu\text{L/mL}$$

**Replikasi 2**

$$y = 0,0704x - 0,027$$

$$0,671 = 0,0704x - 0,027$$

$$0,671 + 0,027 = 0,0704x$$

$$0,698 = 0,0704x$$

$$x = \frac{0,698}{0,0704} \quad x = 9,914 \mu\text{L/mL}$$

**Replikasi 3**

$$y = 0,0704x - 0,027$$

$$0,649 = 0,0704x - 0,027$$

$$0,649 + 0,027 = 0,0704x$$

$$0,676 = 0,0704x$$

$$x = \frac{0,676}{0,0704} \quad x = 9,602 \mu\text{L/mL}$$

**d. %Kadar Flavonoid Total**

**%Kadar**

$$= \frac{\text{Konsentrasi} \times \text{Volume sampel} \times \text{Faktor pengenceran}}{\text{Berat Sampel}} \times 100$$

**Replikasi 1**

$$\% \text{ Kadar} = \frac{9,517 \mu\text{L/mL} \times 10 \text{ mL} \times 1}{0,5 \text{ mL}} = 190,34 \text{ mL QE/L Ekstrak}$$

**Replikasi 2**

$$\% \text{ Kadar} = \frac{9,914 \mu\text{L/mL} \times 10 \text{ mL} \times 1}{0,5 \text{ mL}} = 198,28 \text{ mL QE/L Ekstrak}$$



**Replikasi 3**

$$\% \text{ Kadar} = \frac{9,602 \mu\text{L}/\text{mL} \times 10 \text{ mL} \times 1}{0,5 \text{ mL}} = 192,04 \text{ mL QE/L Ekstrak}$$

$$\Sigma \text{ Kadar} = \frac{190,34 + 198,28 + 192,04}{3} = 193,55 \text{ mL QE/L Ekstrak}$$

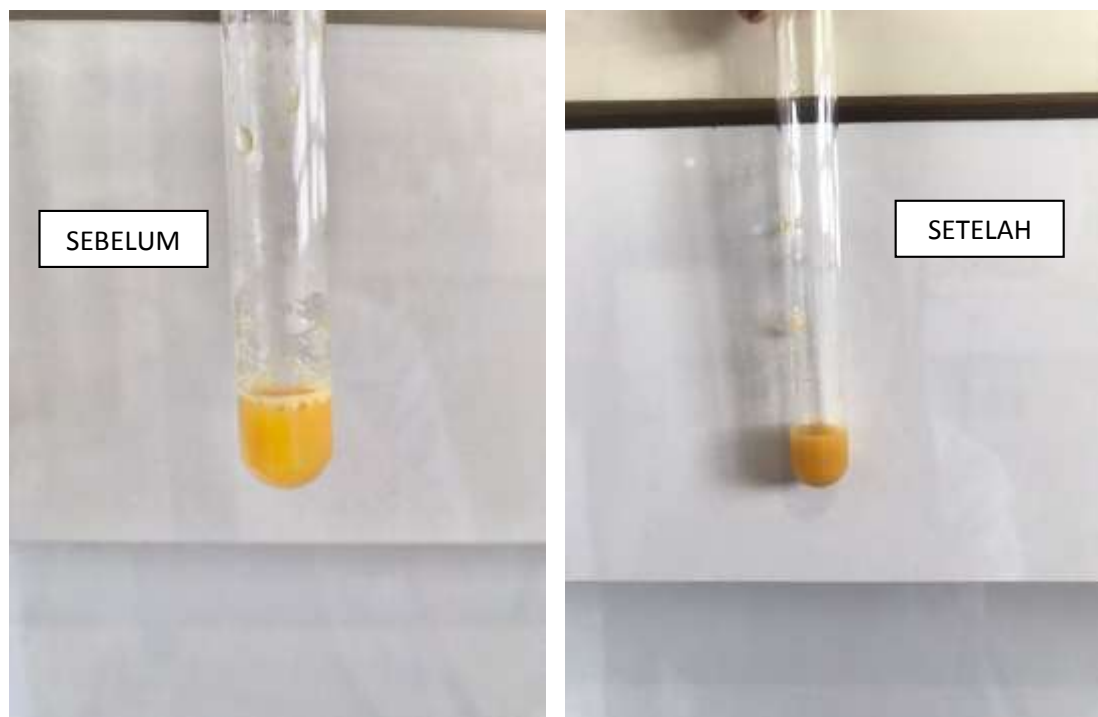
$$= 0,19355 \text{ L QE/L Ekstrak} \times 100\%$$

$$= 19,355 \%$$

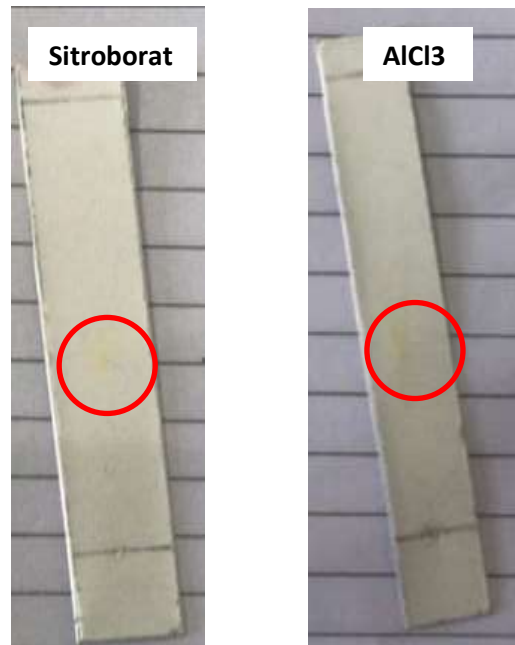
### Lampiran 3. Dokumentasi Pengujian



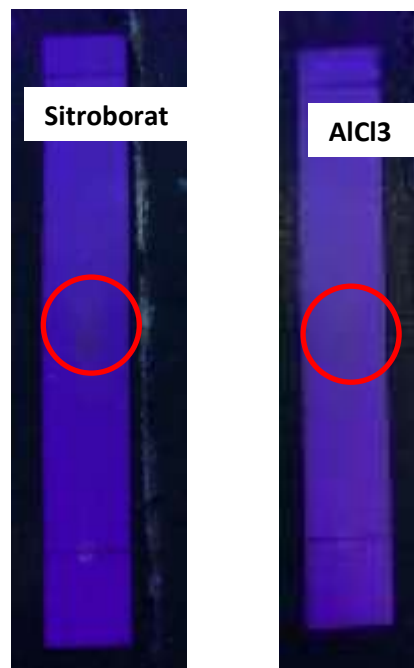
**Gambar 4.** Berat Awal Sampel Buah Dengan (*Dillenia serrata*) (Sumber : Dokumentasi Pribadi)



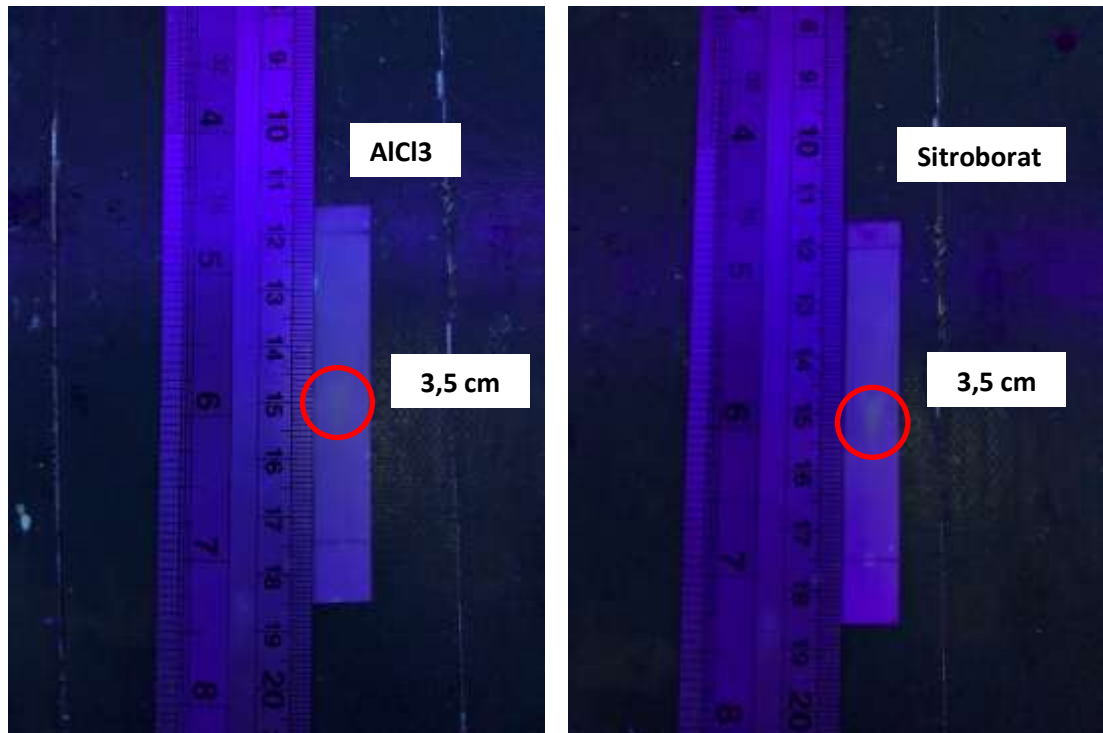
**Gambar 5.** Hasil Pengujian Kualitatif Ekstrak Buah Dengan (*Dillenia serrata*) Menggunakan Metode Wilstater (Sumber : Dokumentasi Pribadi)



**Gambar 6.** Hasil Pengujian KLT Sinar Tampak Sebelum disemprot Pereaksi  $AlCl_3$  dan Sitroborat (Sumber : Dokumentasi Pribadi)



**Gambar 7.** Hasil Pengujian KLT Sinar UV Sebelum disemprot Peraksi  $AlCl_3$  dan Sitroborat (Sumber : Dokumentasi Pribadi)



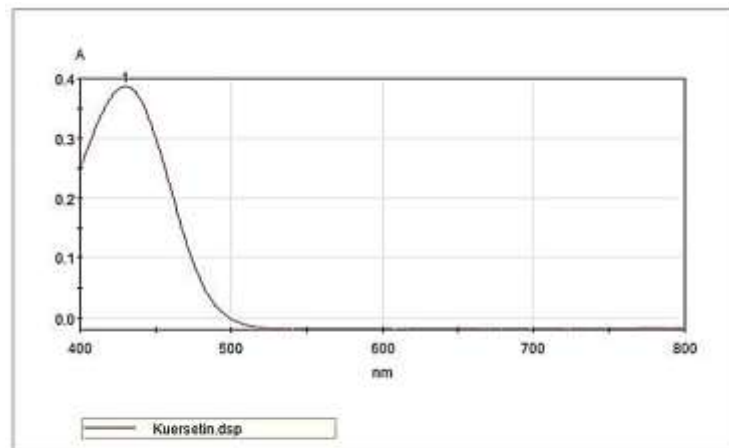
**Gambar 8.** Hasil Pengujian KLT Sinar UV 366 Setelah disemprot Pereaksi  $AlCl_3$  dan Sitroborat (Sumber : Dokumentasi Pribadi)



**Gambar 9.** Seri Konsentrasi Larutan Kueretin (Sumber : Dokumentasi Pribadi)



**Gambar 10.** Larutan Sampel (Sumber : Dokumentasi Pribadi)



Kuersetin.dsp  
 Maxima Threshold: 0,01 A  
 1 430 nm: 0,387 A

**Gambar 11.** Grafik Kurva Absorbansi Standar Kuersetin Panjang Gelombang Maksimum 430 nm

Standards Kuersetin

No.	Concentration [mg/L]	Ordinate [A]	Error [A]	Used
1	2,000	0,108	-0,025	Yes
2	4,000	0,266	-0,001	Yes
3	6,000	0,389	-0,011	Yes
4	8,000	0,538	0,004	Yes
5	10,000	0,676	0,009	Yes

**Gambar 12.** Hasil Pengukuran Absorbansi Seri Konsentrasi Standar Kuersetin

Standards sampel 0,5 mL Armelia

No.	Concentration [mg/L]	Ordinate [A]	Error [A]	Used
1	1,000	0,643	0,355	Yes
1	2,000	0,671	0,000	Yes
3	3,000	0,649	-0,215	Yes

**Gambar 13.** Hasil Pengukuran Absorbansi Sampel Buah Dengan



**Gambar 14.** Alat Spektrofotometri UV-VIS *thermoScientific Tipe Genesys 10s Uv-Vis* (Sumber : Dokumentasi Pribadi)

**Lampiran 4.** Dokumentasi Penyiapan Sampel Sari Buah Dengan (*Dillenia serrata*)



**Gambar 15.** Sampel Buah Dengan (*Dillenia serrata*) Yang Telah Mengalami Proses Perajangan (Sumber : Dokumentasi Pribadi)



**Gambar 16.** Proses Pencucian Sampel Buah Dengan (*Dillenia serrata*) (Sumber : Dokumentasi Pribadi)



**Gambar 17.** Sampel Buah Dengan (*Dillenia serrata*) Yang Telah Mengalami Proses Penyarian (Sumber : Dokumentasi Pribadi)

**Lampiran 5. Gambar Sampel Tumbuhan Dengen (*Dillenia serrata*)**



**Gambar 18. Sampel Tumbuhan Dengen (*Dillenia serrata*)**



**Gambar 19. Buah Tumbuhan Dengen (*Dillenia serrata*)**