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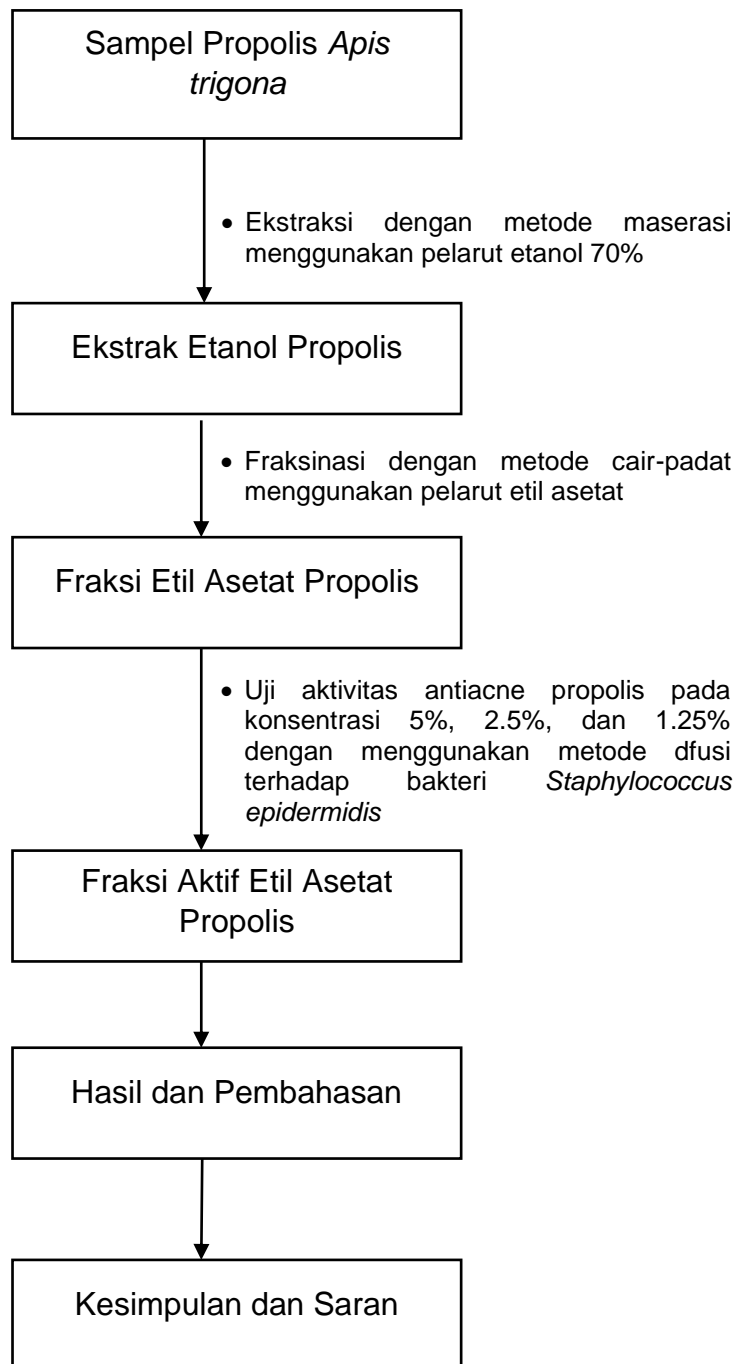
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LAMPIRAN

Lampiran 1. Skema Kerja Ekstraksi dan Uji Aktivitas Antibakteri



Lampiran 2. Perhitungan Rendemen

Lampiran 2.1 Perhitungan % rendemen Sampel

Perhitungan bobot ekstrak = (Bobot Wadah + Ekstrak) – Bobot Wadah Kosong

$$= 166,34 \text{ gram} - 124,84 \text{ gram}$$

$$= 41,5 \text{ gram}$$

Perhitungan % rendemen ekstrak etanol propolis

$$\% \text{ rendemen} = \frac{\text{Bobot ekstrak yang diperoleh}}{\text{Berat sampel}} \times 100\%$$

$$= \frac{41,5 \text{ gram}}{216 \text{ gram}} \times 100\%$$

$$= 19,21\%$$

Lampiran 2.2 Perhitungan % rendemen Fraksi

Fraksi Larut Etil Asetat

Perhitungan bobot ekstrak = (Bobot Wadah + Ekstrak) – Bobot Wadah Kosong

$$= 124,34 \text{ gram} - 123,74 \text{ gram}$$

$$= 0,6 \text{ gram}$$

$$\% \text{ rendemen} = \frac{\text{Bobot ekstrak yang diperoleh}}{\text{Berat sampel}} \times 100\%$$

$$= \frac{0,6 \text{ gram}}{10 \text{ gram}} \times 100\%$$

$$= 6\%$$

Fraksi Tidak Larut Etil Asetat

Perhitungan bobot ekstrak = (Bobot Wadah + Ekstrak) – Bobot Wadah

Kosong

$$= 59,69 \text{ gram} - 52,15 \text{ gram}$$

$$= 7,54 \text{ gram}$$

$$\% \text{ rendemen} = \frac{\text{Bobot Fraksi yang diperoleh}}{\text{Berat ekstrak}} \times 100\%$$

$$= \frac{7,54 \text{ gram}}{10 \text{ gram}} \times 100\%$$

$$= 75,4\%$$

Lampiran 3. Komposisi Media***Nutrient Agar***

<i>Peptone</i>	5 gram
<i>Sodium chloride</i>	5 gram
<i>Beef extract</i>	1,5 gram
<i>Yeast extract</i>	1,5 gram
<i>Agar</i>	15 gram
<i>Purified Water</i>	1 Liter

Nutrient Broth

<i>Peptone</i>	5 gram
<i>Sodium chloride</i>	5 gram
<i>Beef extract</i>	1,5 gram
<i>Yeast extract</i>	1,5 gram
<i>Purified Water</i>	1 Liter

Mueller Hinton Agar

<i>Beef infusion</i>	2 gram
<i>Casein acid hydrolysate</i>	17,5 gram
<i>Starch</i>	1,5 gram
<i>Agar</i>	17 gram
<i>Purified Water</i>	1 Liter

Lampiran 4. Perhitungan Konsentrasi Sampel Uji

$$\begin{aligned}\text{Konsentrasi } 5\% &= \frac{\text{Berat yang ditimbang}}{\text{Volume yang dibuat}} \times 100\% \\ &= \frac{0,05 \text{ gram}}{1 \text{ mL}} \times 100\% \\ &= 5\%\end{aligned}$$

Lampiran 5. Perhitungan Media

Nutrient Agar

$$\begin{aligned}\text{Berat yang ditimbang} &= \frac{\text{Volume yang ingin dibuat}}{\text{Volume dalam 1 Liter}} \times \text{Kelarutan (Liter)} \\ &= \frac{28 \text{ mL}}{1000 \text{ mL}} \times 23 \text{ gram} \\ &= 0,64 \text{ gram}\end{aligned}$$

Nutrient Broth

$$\begin{aligned}\text{Berat yang ditimbang} &= \frac{\text{Volume yang ingin dibuat}}{\text{Volume dalam 1 Liter}} \times \text{Kelarutan (Liter)} \\ &= \frac{82 \text{ mL}}{1000 \text{ mL}} \times 8 \text{ gram} \\ &= 0,65 \text{ gram}\end{aligned}$$

Mueller Hinton Agar

$$\begin{aligned}\text{Berat yang ditimbang} &= \frac{\text{Volume yang ingin dibuat}}{\text{Volume dalam 1 Liter}} \times \text{Kelarutan (Liter)} \\ &= \frac{250 \text{ mL}}{1000 \text{ mL}} \times 38 \text{ gram} \\ &= 9,5 \text{ gram}\end{aligned}$$

Lampiran 6. Perhitungan Nilai Konstanta Dielektrik Total

Diketahui

Nilai KD n-butanol = 17,8

Nilai KD asam asetat = 6,2

Nilai KD air = 80

Perbandingan pelarut = n-butanol : asam asetat : air (3 : 1 : 1) v/v

Nilai KD total =

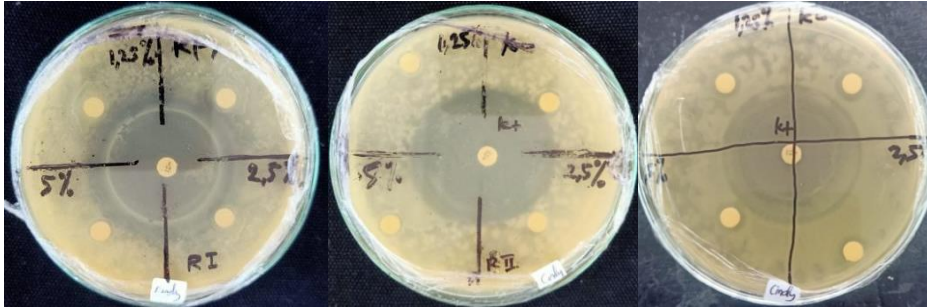
$$\frac{(\text{Nilai KD pelarut 1 X Perbandingan pelarut 1}) + (\text{Nilai KD pelarut 2 X Perbandingan pelarut 2}) + \dots}{\text{Jumlah perbandingan pelarut}}$$

$$= \frac{(17,8 \times 3) + (6,2 \times 1) + (80 \times 1)}{5}$$

$$= \frac{53,4 + 6,2 + 80}{5}$$

Nilai KD total = 27,9

Lampiran 8. Dokumentasi Hasil Penelitian



Gambar 8. Hasil Uji aktivitas Fraksi Etil Asetat Propolis Trigona (*Apis trigona*) terhadap *Staphylococcus epidermidis* (a) replikasi 1 (b) replikasi 2 (c) replikasi 3