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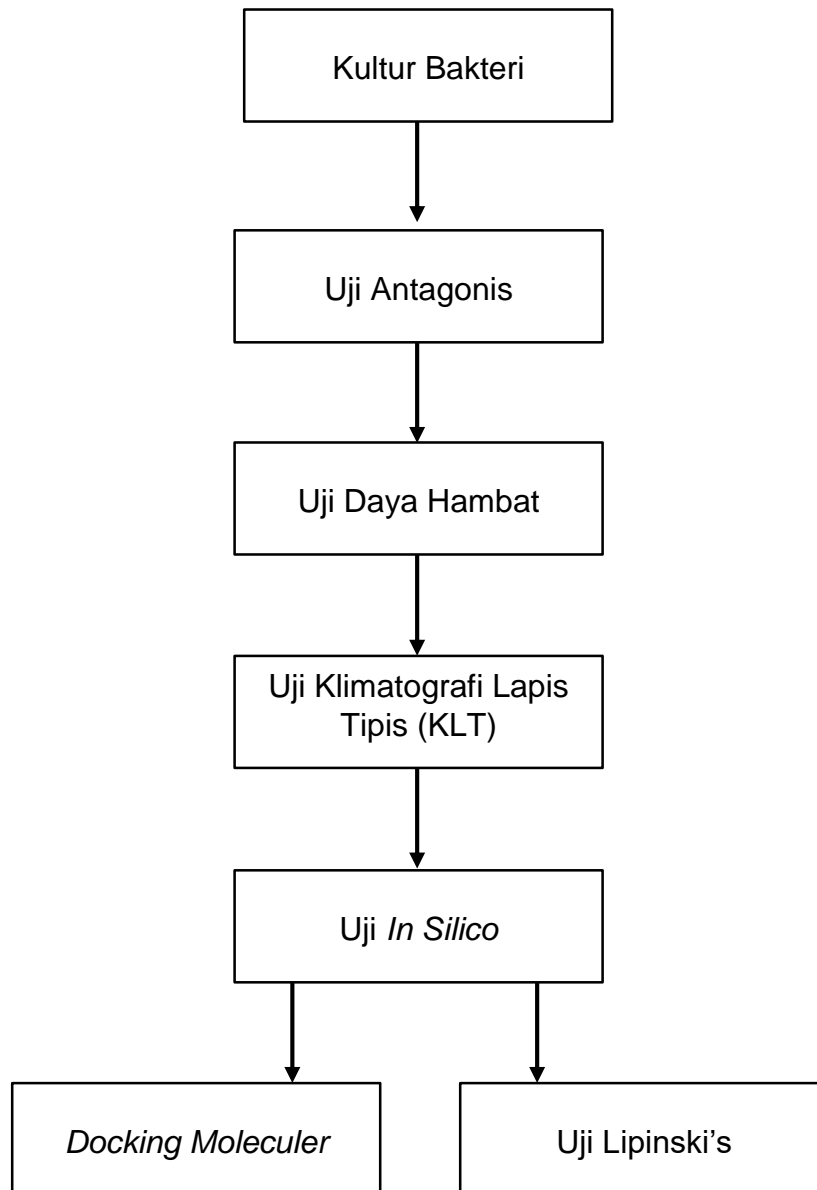
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# LAMPIRAN

## Lampiran 1. Skema Kerja Penelitian



## Lampiran 2. Uji Antagonis Isolat BLT1 Bakteri Endosimbiont Cacing Tanah *Lumbricus* sp

### UJI ANTAGONIS

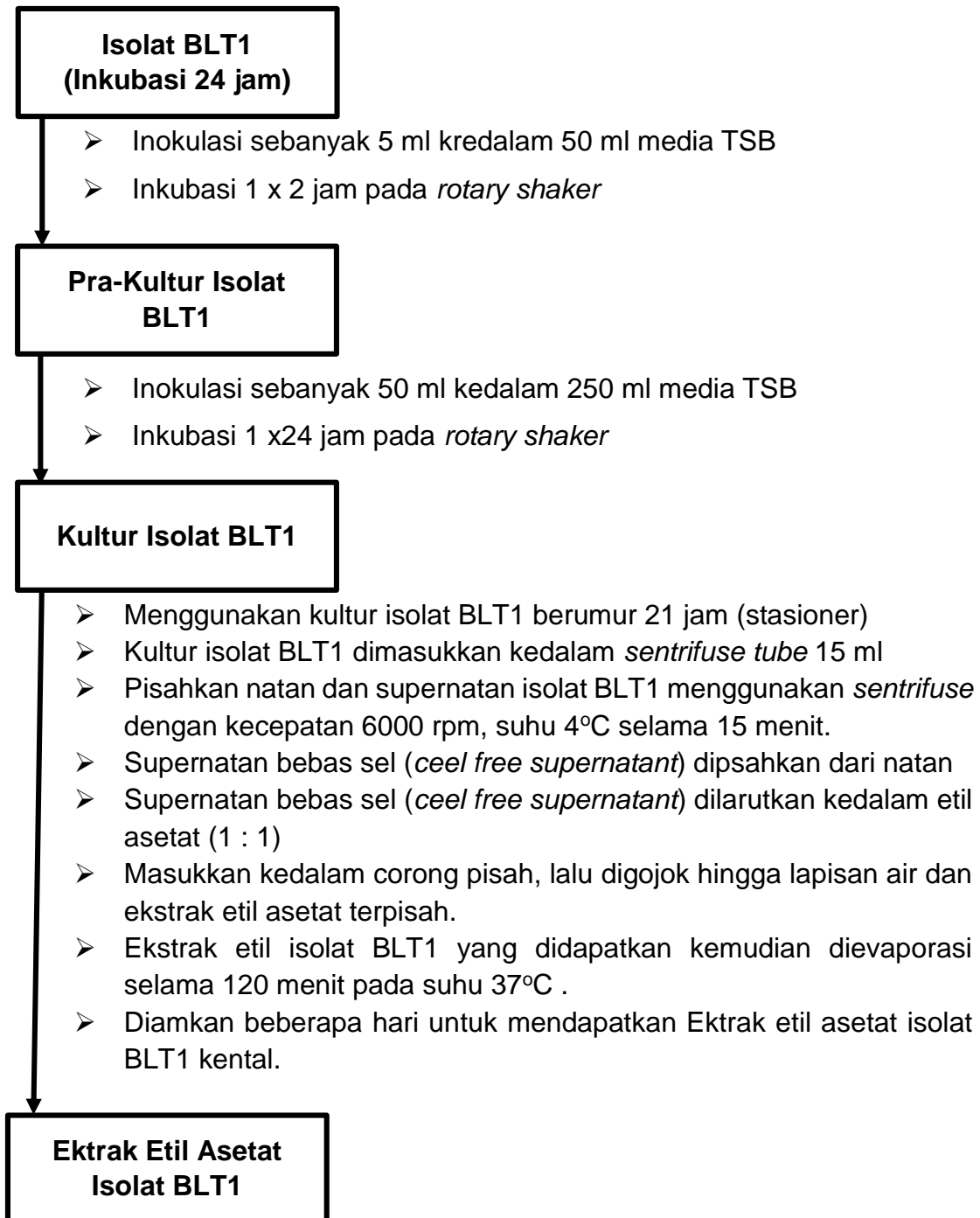
- Menyiapkan isolat BLT1 bakteri endosimbion cacing tanah *Lumbricus* sp dan bakteri uji yang telah diremajakan.
- Bakteri uji yang digunakan terdiri atas *Escherichia coli*, *Staphylococcus aureus* dan *Staphylococcus epidermidis*.
- Media yang digunakan untuk uji antagonis adalah *Nutrient Agar* (NA).
- 1 ml suspensi bakteri uji diinokulasikan kedalam media *Nutrient Agar* (NA), selanjutnya dituang secukupnya kedalam cawan petri.
- Setelah memadat, selanjutnya bakteri isolat BLT1 bakteri endosimbion cacing tanah *Lumbricus* sp diinokulasikan dengan menggunakan goresan sinambung.
- Diinkubasi selama 24-48 jam

### Lampiran 3. Uji Daya Hambat Isolat BLT1 Bakteri Endosimbiont Cacing Tanah *Lumbricus* sp

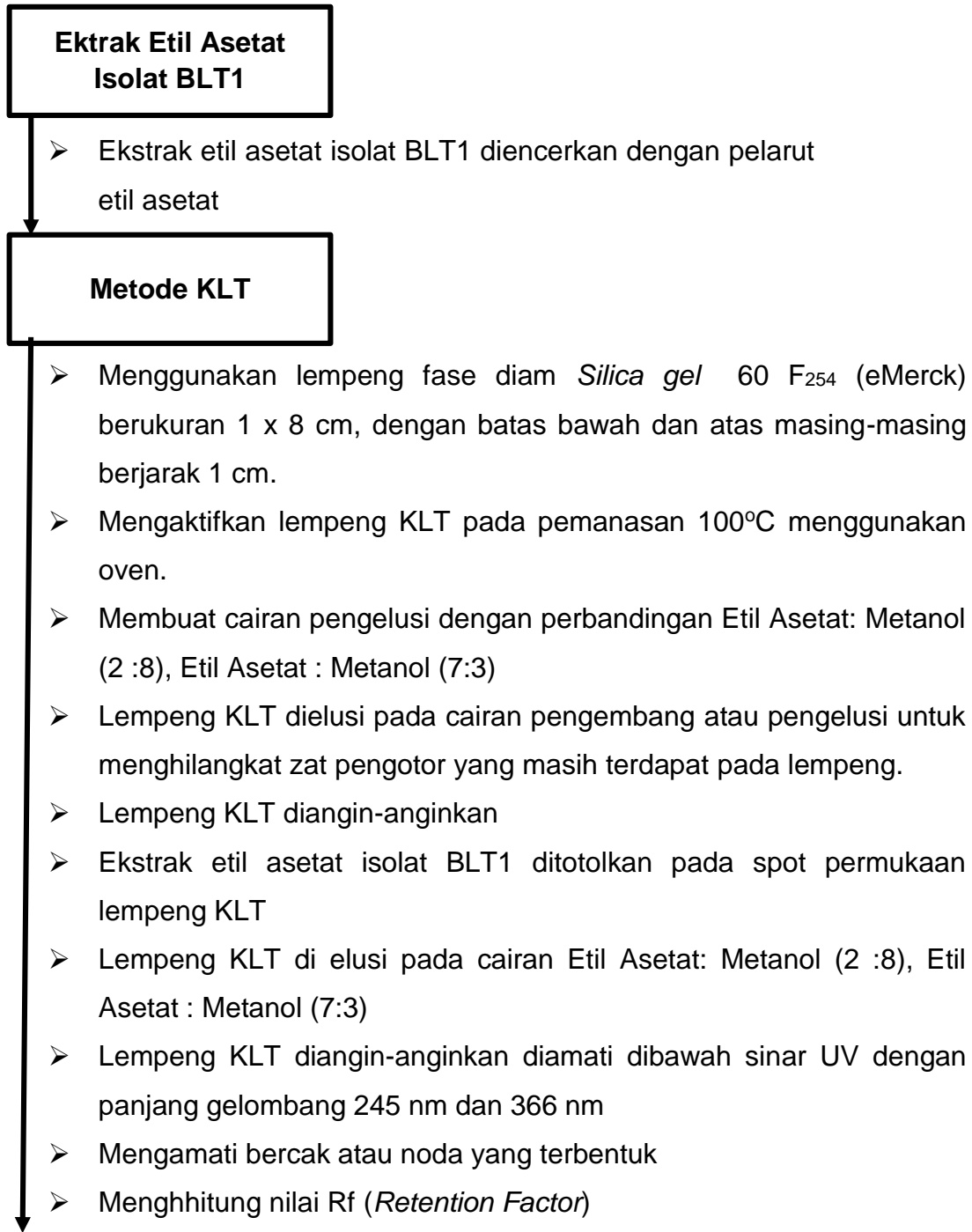
#### UJI DAYA HAMBAT

- Menyiapkan isolat BLT1 bakteri endosimbion cacing tanah *Lumbricus* sp dan bakteri uji yang telah diremajakan.
- Bakteri uji yang digunakan terdiri atas *Escherichia coli*, *Staphylococcus aureus* dan *Staphylococcus epidermidis*.
- Media yang digunakan untuk uji daya hambat adalah *Nutrient Agar* (NA).
- 1 ml bakteri uji disuspensikan kedalam 5 ml NaCl 0.9 %. Kontrol positif yang digunakan adalah antibiotik *cyprofloxacin* Sebanyak 0,003 g antibiotik yang telah digerus disuspensikan kedalam 9 ml aquades.
- 1 ml suspensi bakteri uji diinokulasikan kedalam media *Nutrient Agar* (NA), selanjutnya dituang secukupnya kedalam cawan petri.
- Paper disk steril direndam selama 20 menit dalam supernatant isolat BLT1 bakteri endosimbion cacing tanah *Lumbricus* sp dengan *cyprofloxacin*.
- Paper Disk diletakkan diatas permukaan media *Nutrient Agar* (NA).
- Diinkubasi selama 24-48 jam

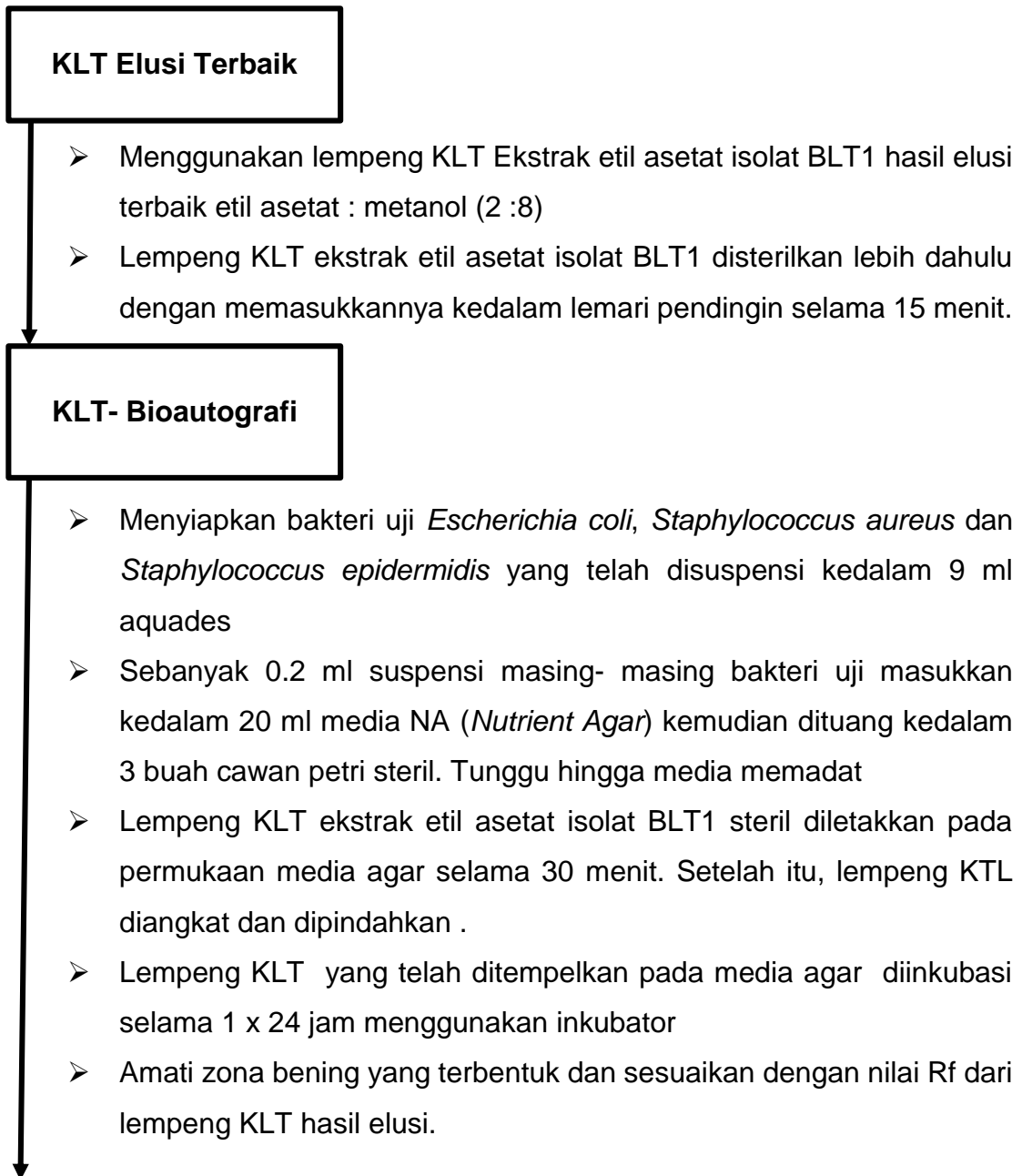
#### Lampiran 4. Alur Kerja Ekstraksi Isolat BLT1 Bakteri Endosimbion Cacing Tanah *Lumbricus sp*



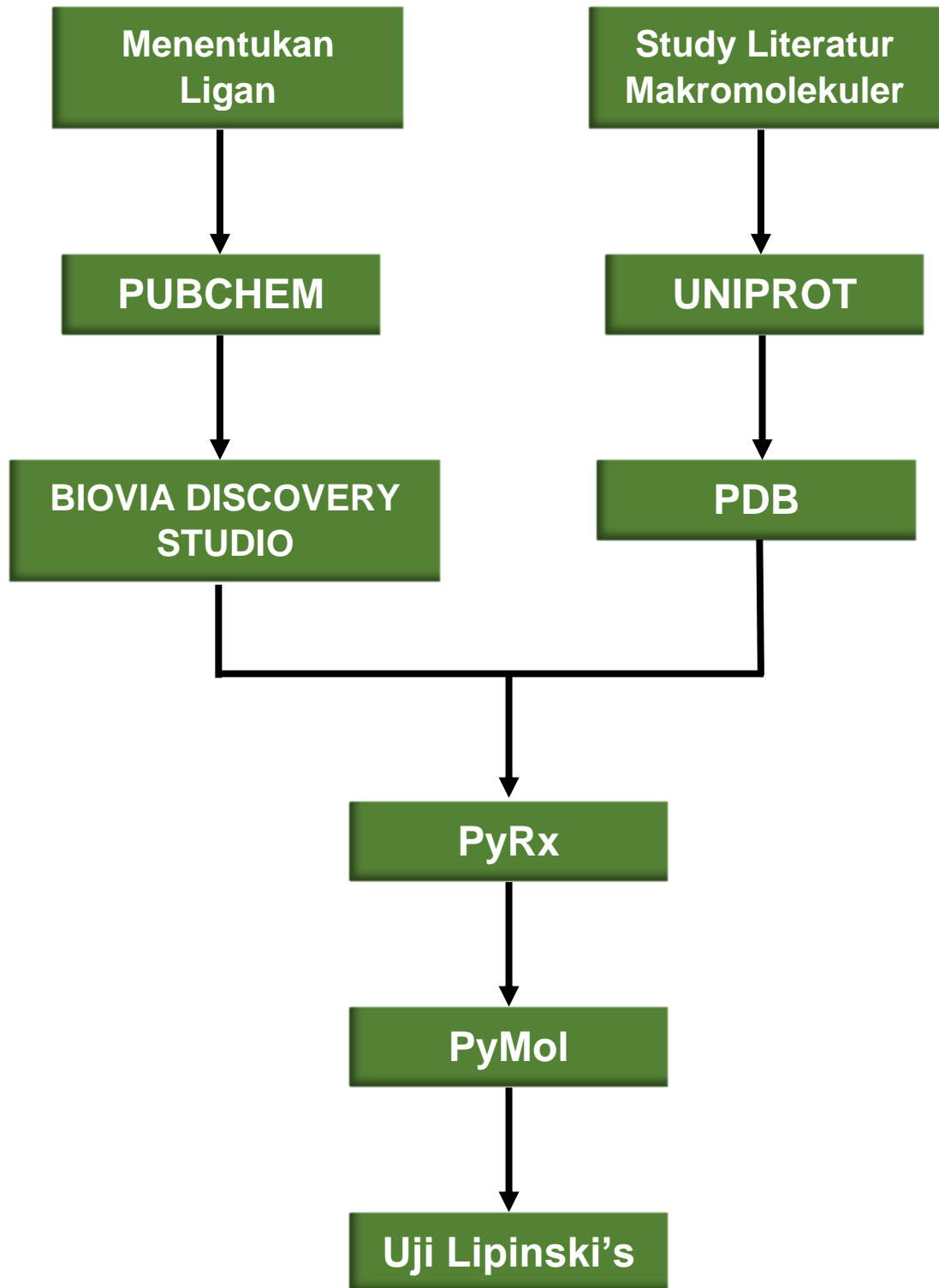
**Lampiran 5. Alur Kerja Kromatografi Lapis Tipis (KLT) Isolat BLT1 Bakteri Endosimbion Cacing Tanah *Lumbricus sp***



## Lampiran 6. Alur Kerja Kromatografi Lapis Tipis (KLT)- Bioautografi Isolat BLT1 Bakteri Endosimbion Cacing Tanah *Lumbricus* sp



**Lampiran 7. Alur Kerja *In Silico***





## Lampiran 8. Alur Kerja *Molecular Docking*

### **Docking Moleculer**

- Aplikasi yang digunakan untuk docking moleculer yaitu aplikasi PyRx.
- Aplikasi PyRx dibuka, kemudian klik Preference untuk mengatur lokasi pengerjaan
- Setelah itu klik file, pilih load molecule, lalu pilih reseptor yang akan digunakan dengan format pdb.
- Selanjutnya klik kanan reseptor yang telah dipilih kemudian klik autodock, pilih make molecule.
- Selanjutnya klik Open Babel, klik Insert New Item, Klik ligan yang akan digunakan dengan format pdb.
- Kemudian klik kanan ligan, pilih minimize selected, klik Convert Selected to Autodock Ligand pdbqt.
- Klik Vina wizard lalu klik star.
- Selanjutnya klik Ligand dengan format pdbqt, klik Forward lalu klik Run Vina.
- Tunggu hasil running selesai, nilai binding affinity akan muncul.

### **Nilai Binding Affinity**

## Lampiran 9. Hasil Uji Lipink's

Submit Reset

**Result**

```
mass: 173.000000
hydrogen bond donor: 1
hydrogen bond acceptors: 1
LOGP: 1.840400
Molar Refractivity: 56.443691
```

**Gambar 1.** Hasil uji Lipink's senyawa *Desmethylselegiline*

Submit Reset

**Result**

```
mass: 165.000000
hydrogen bond donor: 3
hydrogen bond acceptors: 3
LOGP: 0.641000
Molar Refractivity: 45.757195
```

**Gambar 2.** Hasil uji Lipink's senyawa *L-Phenylalanine*

Submit Reset

**Result**

```
mass: 414.000000
hydrogen bond donor: 2
hydrogen bond acceptors: 6
LOGP: 3.061400
Molar Refractivity: 110.785553
```

**Gambar 3.** Hasil uji Lipink's senyawa *Bis(4-ethylbenzylidene)sorbitol*

Submit Reset

**Result**

```
mass: 213.000000
hydrogen bond donor: 1
hydrogen bond acceptors: 3
LOGP: 2.845800
Molar Refractivity: 56.582691
```

**Gambar 3.** Hasil uji Lipink's senyawa *N-Butylbenzenesulfonamide*

Submit Reset

**Result**

```
mass: 122.000000
hydrogen bond donor: 2
hydrogen bond acceptors: 3
LOGP: 0.180500
Molar Refractivity: 32.754898
```

**Gambar 3.** Hasil uji Lipink's senyawa *Nicotinamide*

**Lampiran 10. Dokumentasi**



**Dokumentasi Kultur Bakteri Endosimbion Cacing Tanah *Lumbricus* sp.**



**Dokumentasi Kultur Bakteri Uji**



**Dokumentasi Pengerjaan Uji Antagonis**



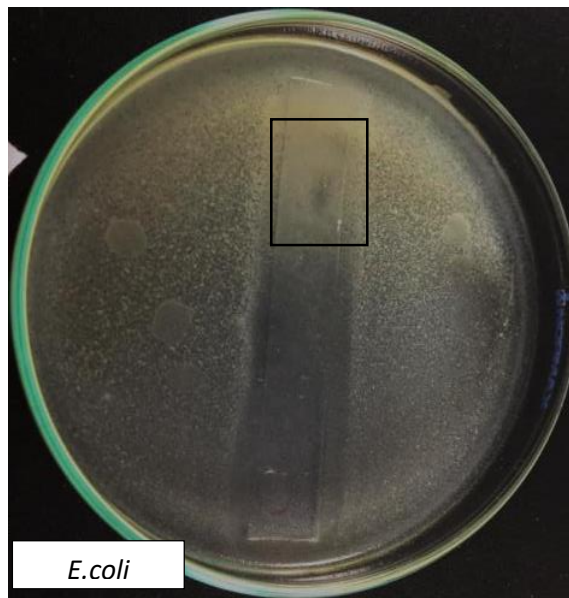
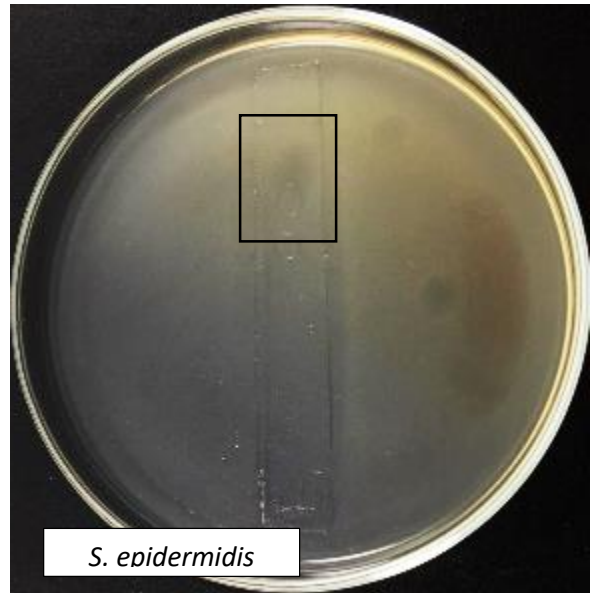
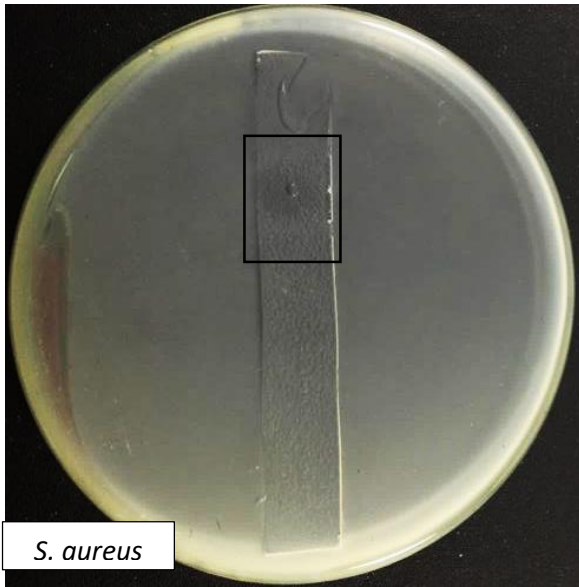
**Dokumentasi Pengerjaan Uji Daya Hambat**



**Dokumentasi Pengerjaan KLT**



**Dokumentasi Pengerjaan KLT-Bioautografi**



Dokumentasi Hasil Uji KLT-Bioautografi



**Dokumentasi**