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## LAMPIRAN

**Lampiran 1.** Isolasi Bakteri Endofit *Acalypha indica* L.



**Gambar 1.** Pengambilan Tanaman Daun Anting-Anting (*Acalypha indica* L.).

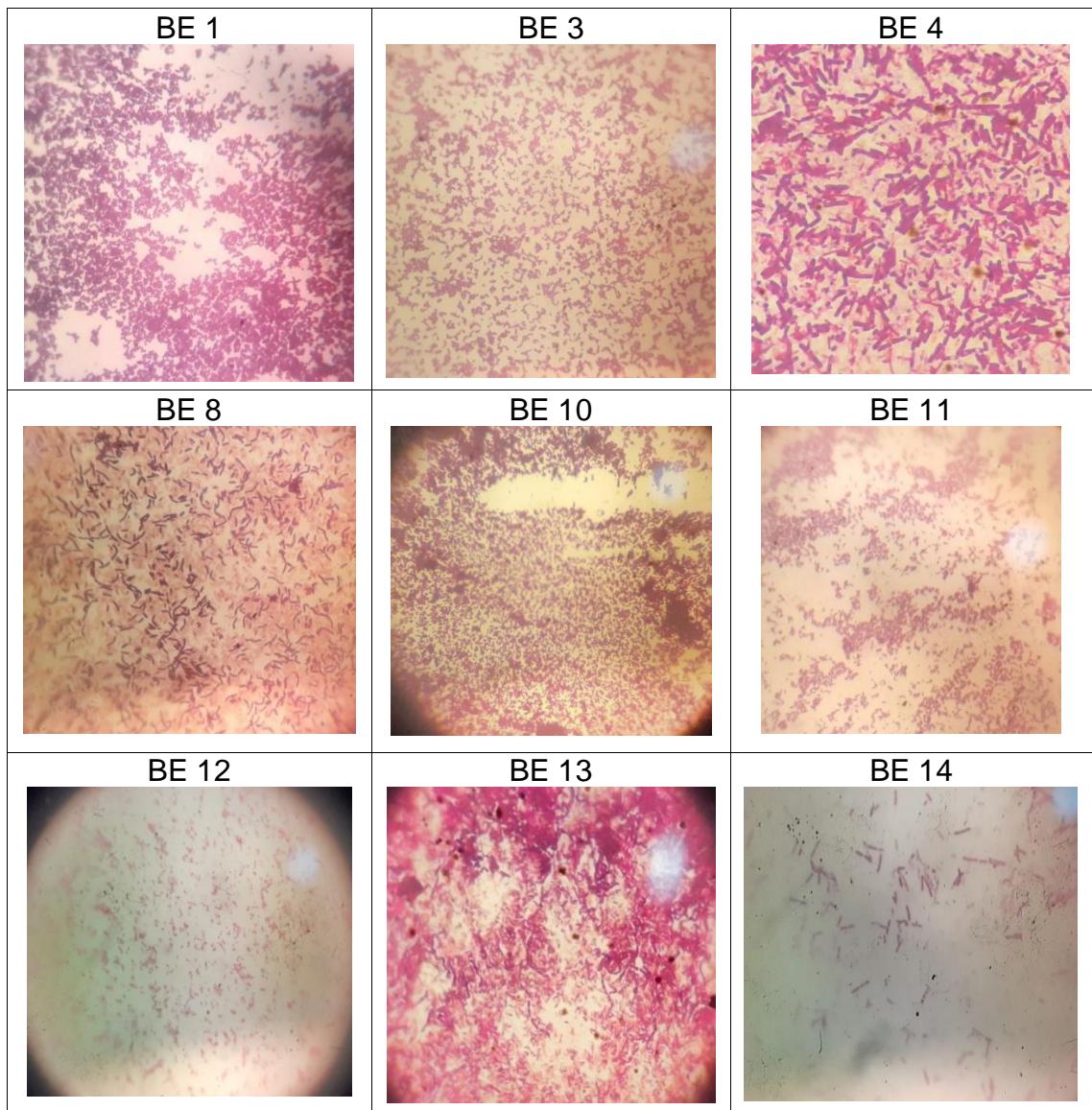


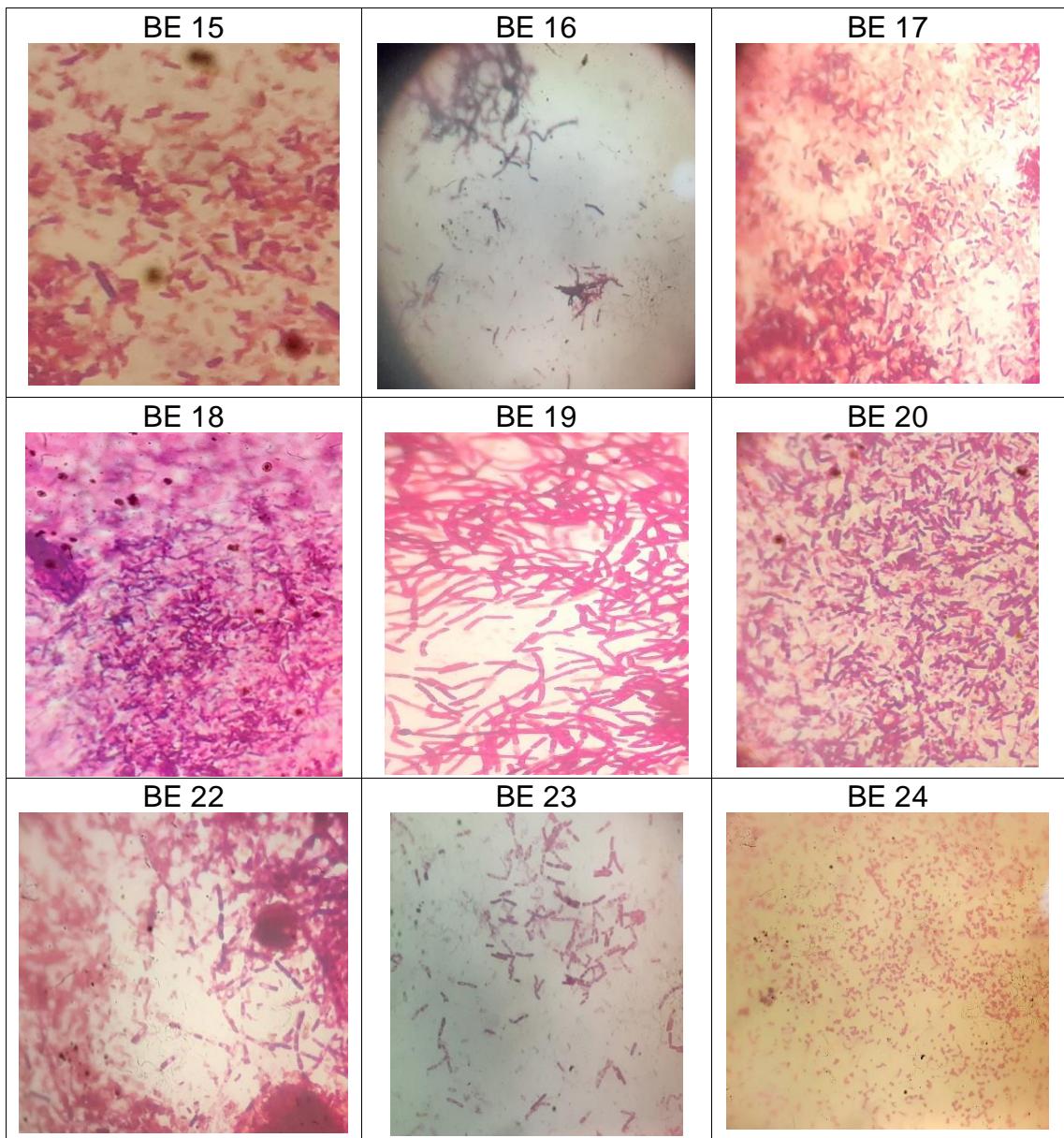
**Gambar 2.** Sterilisasi Permukaan Daun Anting-Anting (*Acalypha indica* L.).

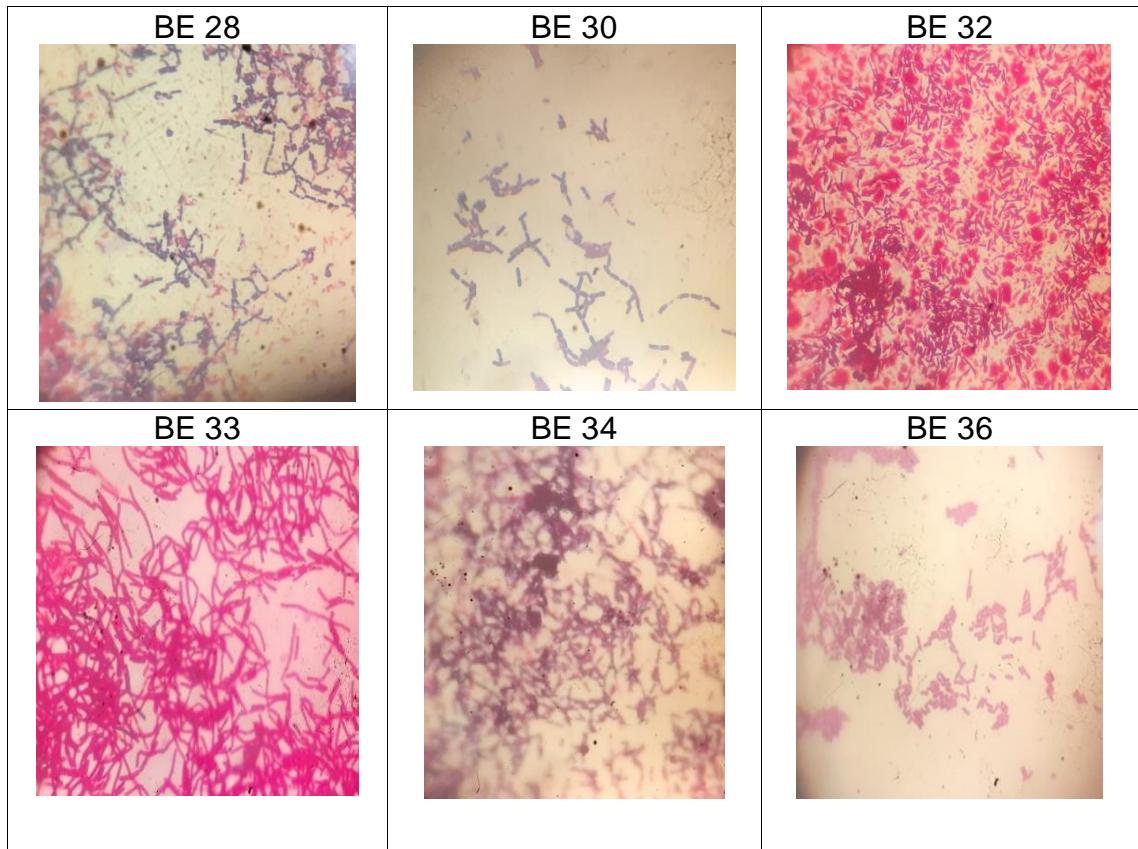
**Lampiran 2.** Karakterisasi Bakteri Endofit



**Gambar 3.** Pemurnian Bakteri Endofit.





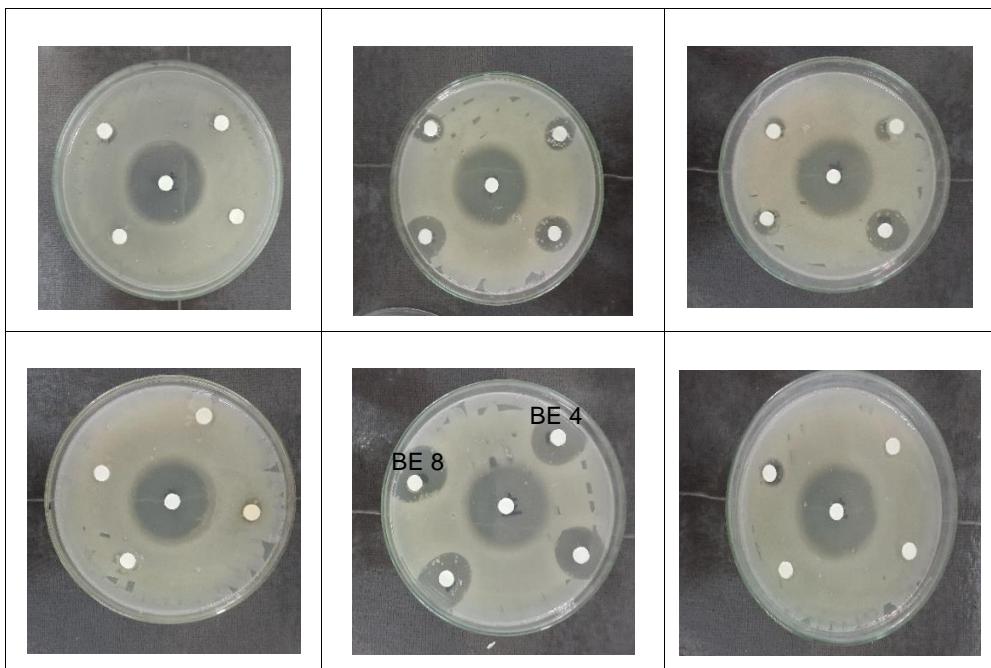


**Gambar 4.** Pewarnaan Gram.

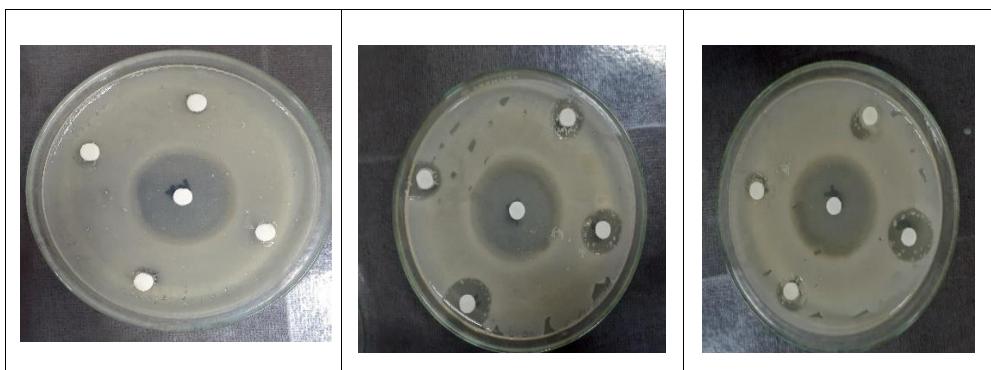


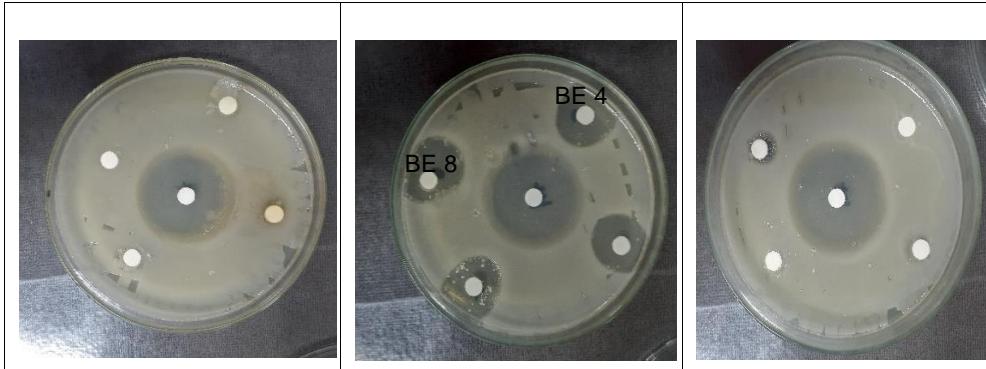
**Gambar 5.** Uji Biokimia.

**Lampiran 3.** Uji Aktivitas Antibakteri terhadap *Klebsiella pneumoniae*



**Gambar 6.** Uji Aktivitas Antibakteri Isolat Bakteri Endofit BE 1 – 24 dengan masa inkubasi 24 jam.





**Gambar 7.** Uji Aktivitas Antibakteri Isolat Bakteri Endofit BE 1 – 24 dengan masa inkubasi 48 jam.

**Lampiran 4.** Identifikasi Isolat Bakteri Terpilih Secara Molekuler

BE 4

```
NNNNANNNTTGCTNCGGATGTTAGCGGCAGGGTGAGTAACACGTGG  
GTAACCTGCCCTGTAAGACTGGGATAACTCCGGAAACCGGAGCTAATACCG  
GATAGTTCTTGAACCGCATGGTTCAAGGATGAAAGACGGTTTCGGCTGTC  
ACTTACAGATGGACCCGGCGCATTAGCTAGTTGGTAGGTAACGGCTCA  
CCAAGGCACGATCGTAGCCGACCTGAGAGGGTATCGGCCACACTGGG  
ACTGAGACACGGCCCAGACTCCTACGGGAGGCAGCAGTAGGGAATCTTCC  
GCAATGGACGAAAGTCTGACGGAGCAACGCCCGTGAGTGATGAAGGTTT  
CGGATCGTAAAGCTCTGTTAGGAAAGAACAGTGCAAGAGTAACGTCT
```

```

TGCACCTTGACGGTACCTAACCAAGAACGCCACGGCTAACTACGTGCCAGCA
GCCGCGGTAATACGTAGGTGGCAAGCGTTGCCGGATTATTGGCGTAAA
GGGCTCGCAGGCAGGTTCTTAAGTCTGATGTGAAAGCCCCCGGCTAACCG
GGGAGGGTCATTGGAAACTGGGAAACTTGAGTGCAGAAGAGGGAGGTGG
ATTCCACGTGTAGCGGTGAAATGCGTAGAGATGTGGAGGAACACCAGTGGC
GAAGGCAGACTCTGGTCTGTAACTGACGCTGAGGAGCGAAAGCGTGGGG
AGCGAACAGGATTAGATAACCTGGTAGTCCACGCCGTAACGATGAGTGCT
AAGTGTAGGGGTTCCGCCCTTAGTGCTGCAGCTAACGCTAACAGCAC
TCCGCCTGGGAGTACGGTCGCAAGACTGAAATTCAAAGGAATTGACGGG
GGCCCGACAAGCGGTGGAGCATGTGGTTGAATTGAAGCAACCGGAAGA
ACCTTACCAAGGTCTGGACTTCCTCTGACAACCCCTACAAATAGGGCTTCCT
TCGGGAACGGATGGACAGGTGNCGCTGGTTTATCTCCTGTTNTGA
AAATTTCGATTAGTCCCCCACAGAGGGCCACCCCT

```

**Gambar 8.** Urutan Basa Nukleotida Isolat Bakteri Endofit BE 4.

BE 8

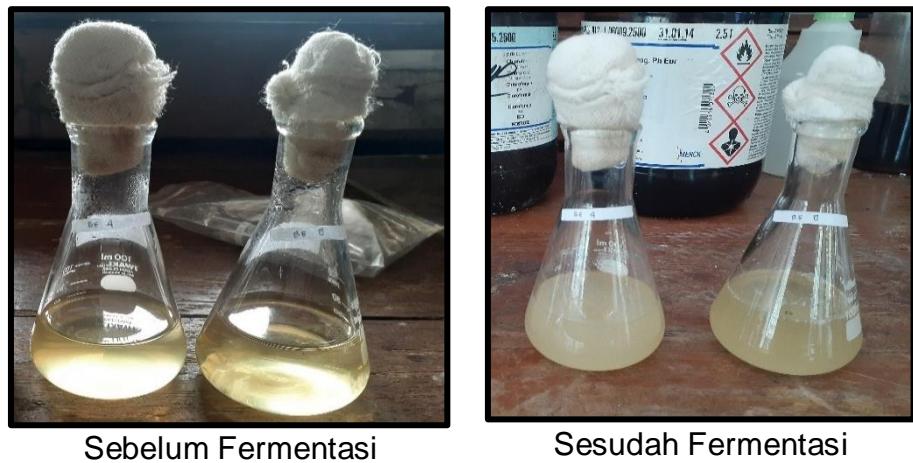
```

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GCTAATACCGCATAACGTACAAGACCAAAGAGGGGACCTTCGGGCCTCT
TGCCATCGGATGTGCCCGGATGGGATTAGCTATTACGTGGGTAACGGCTC
ACCTACGCCACGATCCCTATCTGGTCTGAAAGGATGACCAGCCACACTGGA
ACTGAGACACGGTCCAGACTCCTACTGGAGGCAGCAGTGGGAATATTGCT
CAATGGGCGCGAGCCTGATGCAGCCATGCCCGTGTATAAAAAGGCCTT
CGGGTTGAAAGTACTTCACCGGGAGGAAGGCATAAGGTTAATAACCT
TGTGATTGACGTTACCGCAAATAAGCACCGGCTAACTCCGTGCCACCA
GCCCGGTAATACGGAGGGTGCAAGCGTTAATCGGAATTACTGGCGTAAA
GCGCACGCAGGCAGGTCTGCAAGTCGGATGTGAAATCCCGGGCTAAC
TGGGAACTGCATTGAAACTGGCAGGCTAGAGTCTTGATAGGGGGTAGA
ATTCCAAGTGTAGCGGTGAAATGCGTAGAGATCTGGAGTAATACCGGTGGC
GAAGGCAGGCCCTAGACAAAGACTGACGCTCAAGTGCAGCGAAAGCGTGGGG
AGCAAACAGGATTAGATAACCTGGTAGTCCACGCCGTAACGATGTCCACT
TGGAGGTTGGGCTTGGAGGCAGCTGGCTCCGGAGCTAACGCGTTAACGTC
TACCGCCTGGGAGTACGGCAGCAAGGTTAAACTCTAATAATTGTCGG
GTGCCGGACAACCGTTCGAGCATTGTTTATCGATGCGATGCGAGGAA
CCTTACATACTCTGATT

```

**Gambar 9.** Urutan Basa Nukleotida Isolat Bakteri Endofit BE 8.

#### Lampiran 5. Fermentasi dan Ekstraksi



**Gambar 10.** Hasil Fermentasi.



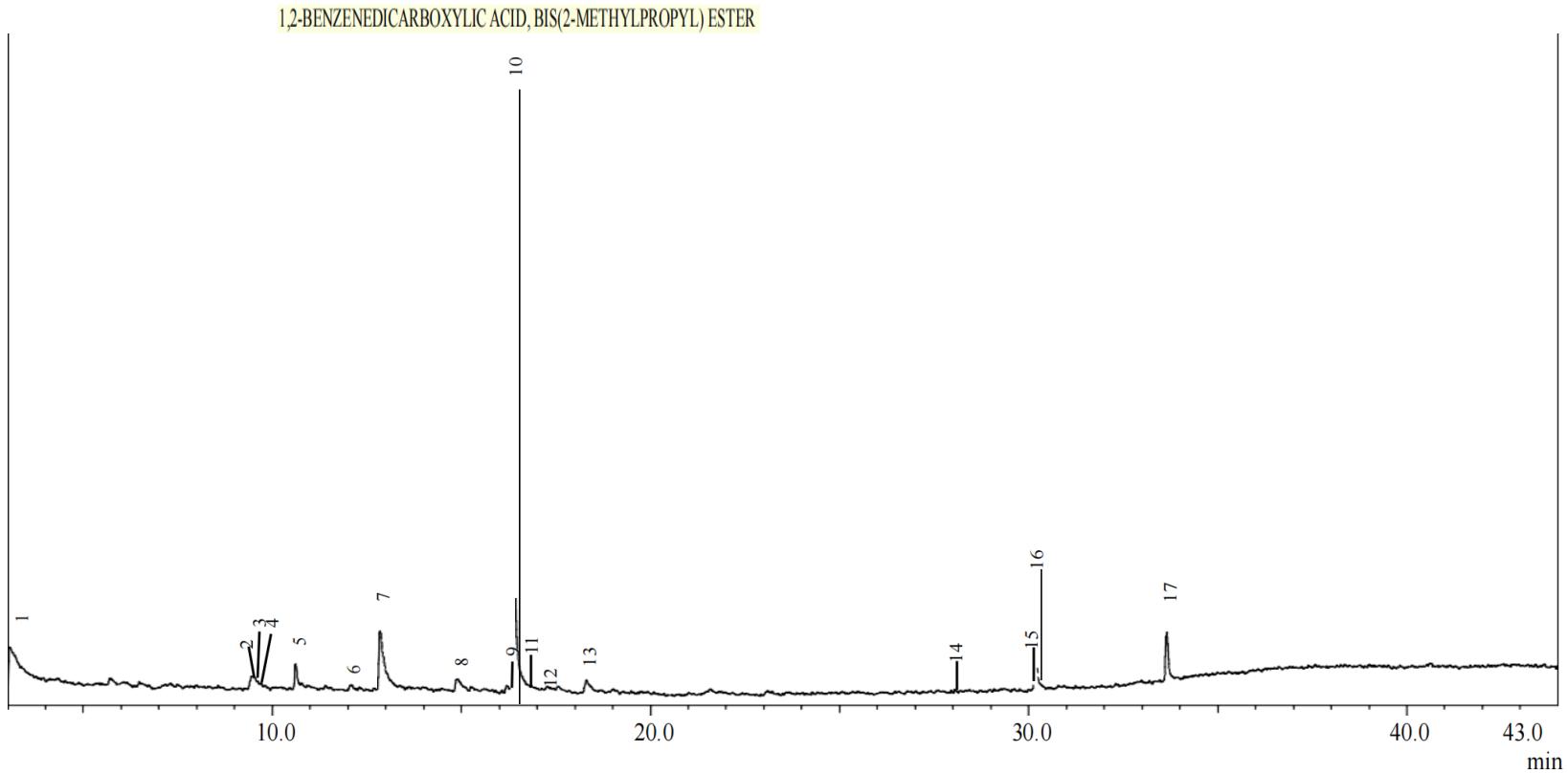
**Gambar 11.** Hasil Sentrifuge.



**Gambar 12.** Pencampuran Pelarut.

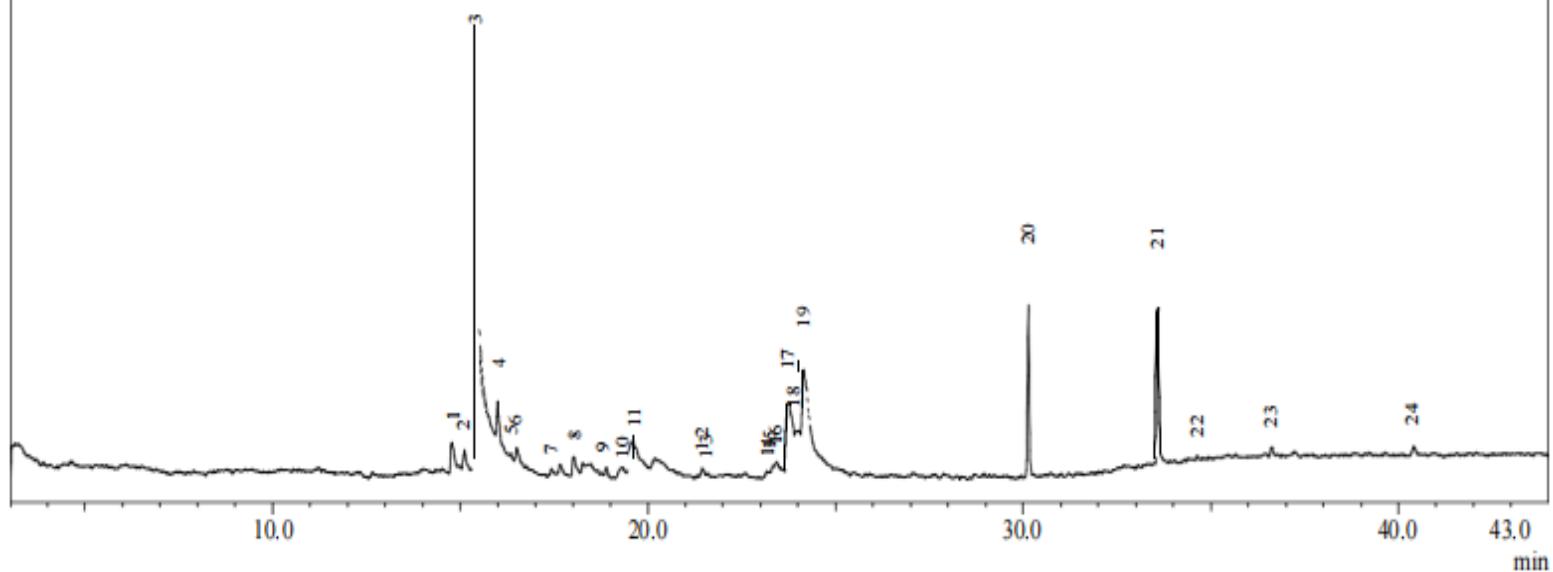


**Gambar 13.** Hasil Ekstraksi.

**Lampiran 6.** Analisa Metabolit Sekunder Bakteri Endofit

**Gambar 14.** Chromatogram Ekstrak Etil Asetat Isolat Bakteri Endofit BE 4.

Pyrrolo[1,2-a]pyrazine-1,4-dione, hexahydro-



**Gambar 15.** Chromatogram Ekstrak Etil Asetat Isolat Bakteri Endofit BE 8.