

3. Data Perhitungan

1.1 Perhitungan % Inhibisi

1) Non Fermentasi

a. Konsentrasi 1%

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,1065) / 0,229 \times 100 \\ &= 53,49344978 \end{aligned}$$

b. Konsentrasi 2 %

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,038) / 0,229 \times 100 \\ &= 83,40611354 \end{aligned}$$

c. Konsentrasi 3 %

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,025) / 0,229 \times 100 \\ &= 89,08296943 \end{aligned}$$

2) Fermentasi 1 Hari

a. Konsentrasi 1 %

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,09) / 0,229 \times 100 \\ &= 60,69868996 \end{aligned}$$

b. Konsentrasi 2 %

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,03) / 0,229 \times 100 \\ &= 86,89956332 \end{aligned}$$

c. Konsentrasi 3 %

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,019) / 0,229 \times 100 \\ &= 91,70305677 \end{aligned}$$

3) Fermentasi 3 Hari

a. Konsentrasi 1 %

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,09) / 0,229 \times 100 \\ &= 60,69868996 \end{aligned}$$

b. Konsentrasi 2 %

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,046) / 0,229 \times 100 \\ &= 79,91266376 \end{aligned}$$

c. Konsentrasi 3 %

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,0305) / 0,229 \times 100 \\ &= 86,68122271 \end{aligned}$$

4) Fermentasi 5 Hari

a. Konsentrasi 1 %

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,091) / 0,229 \times 100 \\ &= 60,26200873 \end{aligned}$$

b. Konsentrasi 2 %

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,052) / 0,229 \times 100 \\ &= 77,29257642 \end{aligned}$$

c. Konsentrasi 3%

$$\begin{aligned} \% \text{ Inhibisi} &= \frac{\text{Absorbansi Kontrol} - \text{Absorbansi Sampel}}{\text{Absorbansi Kontrol}} \times 100 \\ &= (0,229 - 0,036) / 0,229 \times 100 \\ &= 84,27947598 \end{aligned}$$

2.1 Perhitungan IC₅₀

a. Non Fermentasi

$$Y = 1779,5x + 39,738$$

$$50 = 1779,5x + 39,738$$

$$\begin{aligned}
 50 - 39,738 &= 1779,5x \\
 10,262 &= 1779,5x \\
 X \quad (IC_{50}) &= 0,00576
 \end{aligned}$$

b. Fermentasi 1 Hari

$$\begin{aligned}
 Y &= 1550,2x + 48,763 \\
 50 &= 1550,2x + 48,763 \\
 50 - 48,763 &= 1550,2x \\
 1,237 &= 1550,2x \\
 X &= 0,00079
 \end{aligned}$$

c. Fermentasi 3 Hari

$$\begin{aligned}
 Y &= 1299,1x + 49,782 \\
 50 &= 1299,1x + 49,782 \\
 50 - 49,782 &= 1299,1x \\
 0,218 &= 1299,1x \\
 X &= 0,00016
 \end{aligned}$$

d. Fermentasi 5 Hari

$$\begin{aligned}
 Y &= 1200,9x + 49,927 \\
 50 &= 1200,9x + 49,927 \\
 50 - 49,927 &= 1200,9x \\
 0,073 &= 1200,9x \\
 X &= 0,00006
 \end{aligned}$$