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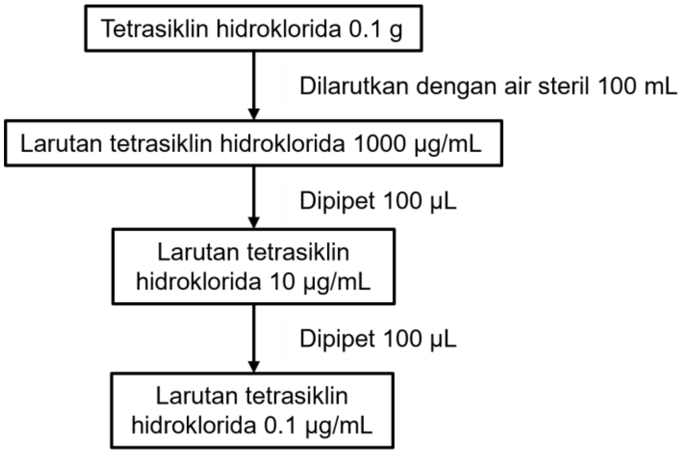
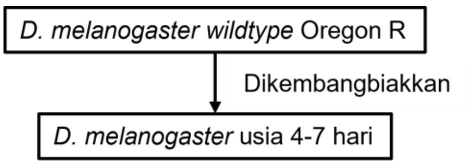
LAMPIRAN

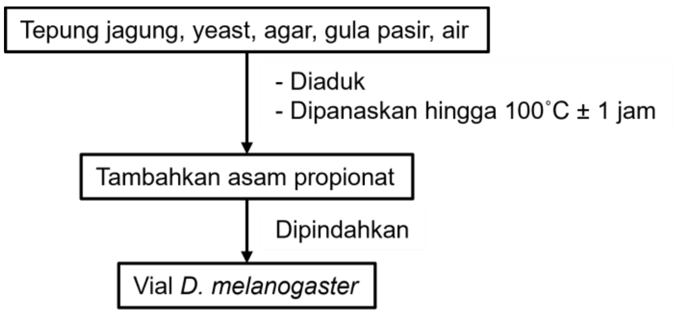
Lampiran 1. Preparasi sampel



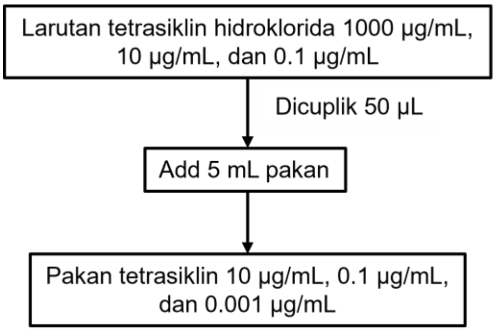
Lampiran 2. Penyiapan hewan uji



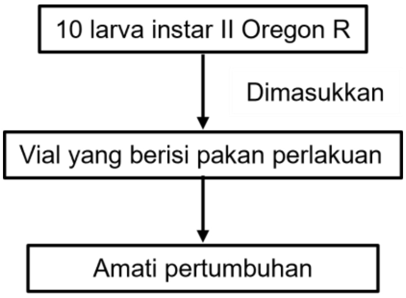
Lampiran 3. Pembuatan pakan



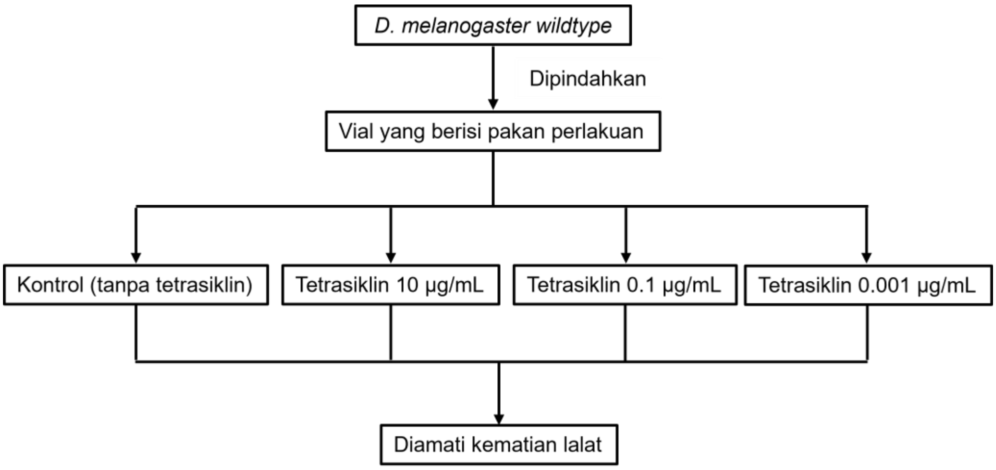
Lampiran 4. Penyiapan pakan pengujian



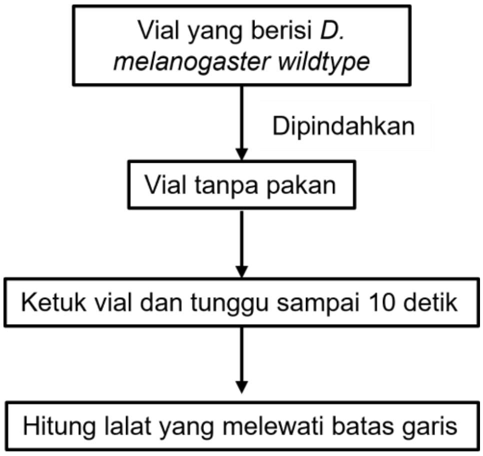
Lampiran 5. Uji perkembangan



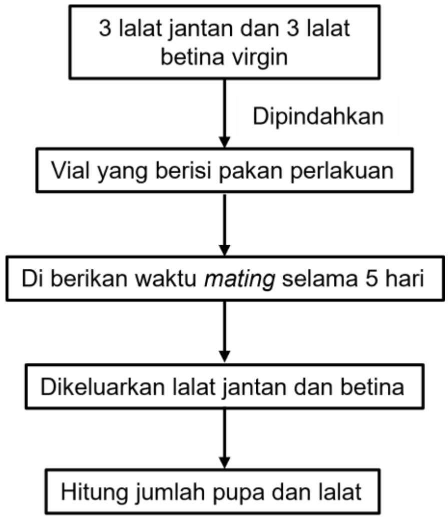
Lampiran 6. Uji survival lalat dewasa



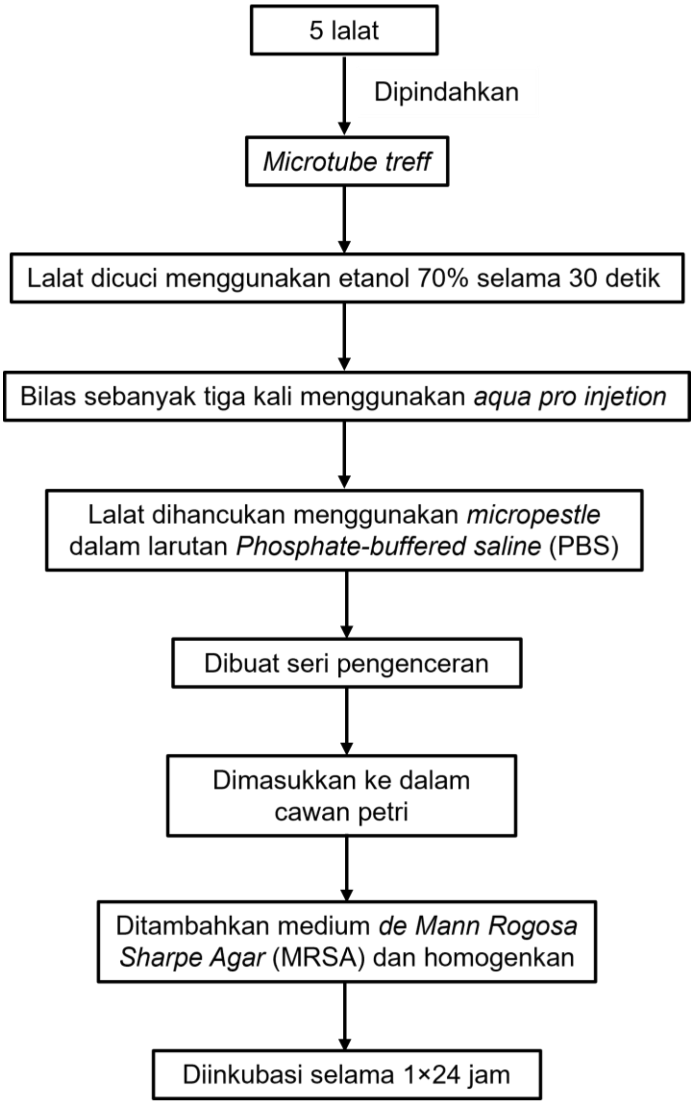
Lampiran 7. Uji lokomotor lalat dewasa



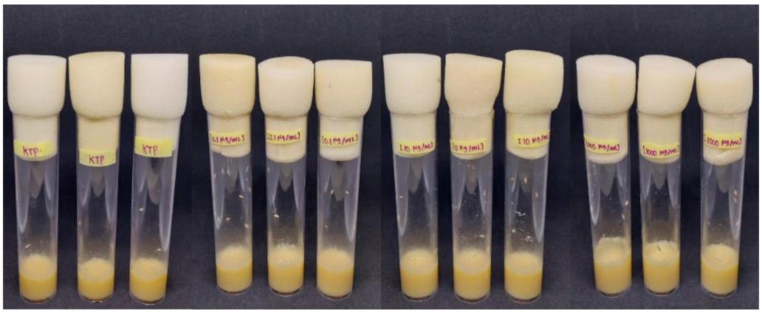
Lampiran 8. Uji reproduksi



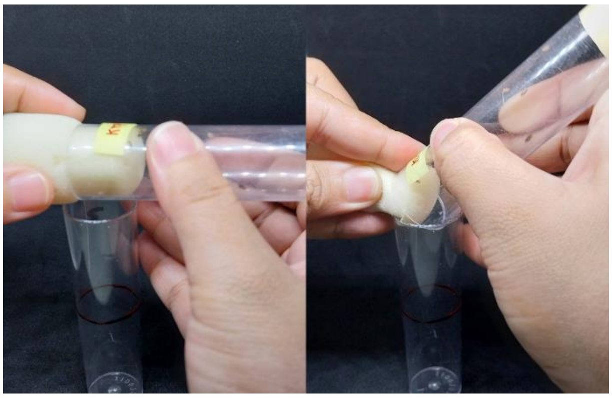
Lampiran 9. Uji *colony forming unit* (CFU)



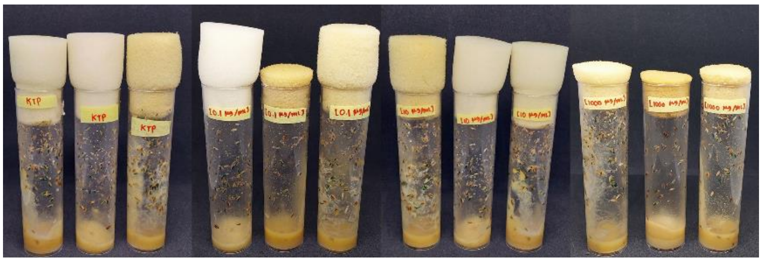
Lampiran 10. Gambar penelitian



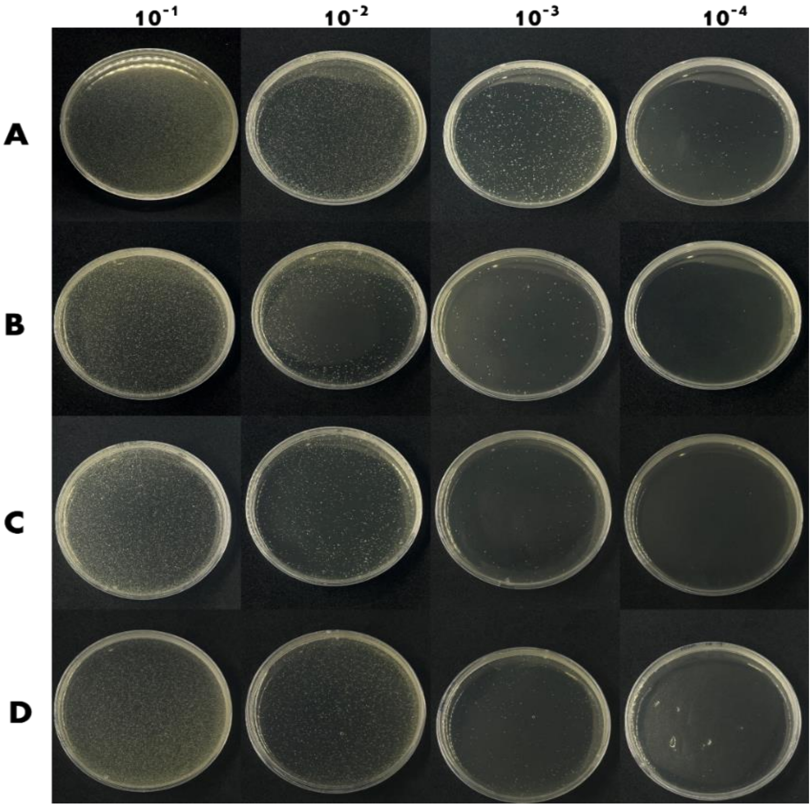
Gambar 18. Uji perkembangan larva menjadi pupa dan pupa menjadi lalat yang dilanjutkan ke uji survival lalat dewasa



Gambar 19. Uji lokomotor lalat dewasa



Gambar 20. Uji reproduksi



Gambar 21. Kultur bakteri pada Drosophila menggunakan medium *de Mann Rogosa Sharpe Agar* (MRSA). Kontrol tanpa tetrasiklin (A), tetrasiklin 0.001 µg/mL (B), tetrasiklin 0.1 µg/mL (C), tetrasiklin 10 µg/mL (D).

Lampiran 11. Perhitungan pengenceran larutan stok

- **Dibuat pengenceran untuk konsentrasi 10 µg/mL**

  V1×N1 = V2×N2

  V1× 1000 µg/mL = 10 mL × 10 µg/mL

  V1 = $\frac{10 \text{ mL} \times 10 \text{ µg/mL}}{1000 \text{ µg/mL}} = 0.1 \text{ mL}$

- **Dibuat pengenceran untuk konsentrasi 0.1 µg/mL**

  V1×N1 = V2×N2

  V1× 10 µg/mL = 10 mL × 0.1 µg/mL

  V1 = $\frac{10 \text{ mL} \times 0.1 \text{ µg/mL}}{10 \text{ µg/mL}} = 0.1 \text{ mL}$

Lampiran 12. Contoh penentuan volume tetrasiklin pada pakan 10 µg/mL

- **Konsentrasi 10 µg/mL**

  V1×N1 = V2×N2

  V1 × 1000 µg/mL = 5 mL × 10 µg/mL

  V1 = $\frac{5 \text{ mL x } 10 \text{ µg/mL}}{1000 \text{ µg/mL}} = 0{,}05 \text{ mL}$

Lampiran 13. Analisis statistik

Tabel 1. Hasil perbandingan tukey uji perkembangan larva menjadi pupa setelah terpapar tetrasiklin

Tukey's multiple comparisons test	Mean Diff	95,00% CI of diff	Summary	Adjusted P Value
Kontrol vs. 0.001 µg/mL	0,5	-11,26 to 12,26	NS	0,9993
Kontrol vs. 0.1 µg/mL	0	-11,09 to 11,09	NS	>0,9999
Kontrol vs. 10 µg/mL	2	-9,088 to 13,09	NS	0,953
0.001 µg/mL] vs. 0.1 µg/mL	-0,5	-12,26 to 11,26	NS	0,9993
0.001 µg/mL vs. 10 µg/mL	1,5	-10,26 to 13,26	NS	0,9824
0.1 µg/mL vs. 10 µg/mL	2	-9,088 to 13,09	NS	0,953

Tabel 2. Hasil perbandingan tukey uji perkembangan pupa menjadi lalat setelah terpapar tetrasiklin

Tukey's multiple comparisons test	Mean Diff	95,00% CI of diff	Summary	Adjusted P Value
Kontrol vs. 0.001 µg/mL	8	-7,139 to 23,14	NS	0,4537
Kontrol vs. 0.1 µg/mL	2	-13,14 to 17,14	NS	0,981
Kontrol vs. 10 µg/mL	2	-13,14 to 17,14	NS	0,981
0.001 µg/mL vs. 0.1 µg/mL	-6	-21,14 to 9,139	NS	0,6747
0.001 µg/mL vs. 10 µg/mL	-6	-21,14 to 9,139	NS	0,6747
0.1 µg/mL vs. 10 µg/mL	0	-15,14 to 15,14	NS	>0,9999

Tabel 3. Hasil perbandingan tukey uji survival lalat dewasa pada hari ke- 35 setelah terpapar tetrasiklin

Tukey's multiple comparisons test	Mean Diff	95,00% CI of diff	Summary	Adjusted P Value
Kontrol vs. 0.001 µg/mL	20	-4,290 to 44,29	NS	0,0975
Kontrol vs. 0.1 µg/mL	20	-4,290 to 44,29	NS	0,0975
Kontrol vs. 10 µg/mL	31,67	9,493 to 53,84	*	0,0122
0.001 µg/mL vs. 0.1 µg/mL	0	-24,29 to 24,29	NS	>0,9999
0.001 µg/mL vs. 10 µg/mL	11,67	-10,51 to 33,84	NS	0,3198
0.1 µg/mL vs. 10 µg/mL	11,67	-10,51 to 33,84	NS	0,3198

Tabel 4. Hasil perbandingan tukey uji lokomotor lalat dewasa antara kelompok kontrol dan 0.001 µg/mL

Tukey's multiple comparisons test	Mean Diff	95,00% CI of diff	Summary	Adjusted P Value
1:Kontrol vs. 1:0.001 µg/mL	2	-21,46 to 25,46	NS	>0,9999
3:Kontrol vs. 3:0.001 µg/mL	5,667	-17,79 to 29,13	NS	>0,9999
6:Kontrol vs. 6:0.001 µg/mL	-13	-36,46 to 10,46	NS	0,8382
9:Kontrol vs. 9:0.001 µg/mL	-13	-36,46 to 10,46	NS	0,8382
12:Kontrol vs. 12:0.001 µg/mL	-6,667	-30,13 to 16,79	NS	0,9999
15:Kontrol vs. 15:0.001 µg/mL	-2,667	-26,13 to 20,79	NS	>0,9999
18:Kontrol vs. 18:0.001 µg/mL	14	-9,458 to 37,46	NS	0,7479
21:Kontrol vs. 21:0.001 µg/mL	11,33	-12,13 to 34,79	NS	0,9414
24:Kontrol vs. 24:0.001 µg/mL	-0,3333	-23,79 to 23,13	NS	>0,9999
27:Kontrol vs. 27:0.001 µg/mL	5,333	-18,13 to 28,79	NS	>0,9999

Tabel 5. Hasil perbandingan tukey uji lokomotor lalat dewasa antara kelompok kontrol dan 0.1 µg/mL

Tukey's multiple comparisons test	Mean Diff	95,00% CI of diff	Summary	Adjusted P Value
1:Kontrol vs. 1:0.1 µg/mL	3,667	-31,18 to 38,52	NS	>0,9999
3:Kontrol vs. 3:0.1 µg/mL	6,333	-28,52 to 41,18	NS	>0,9999
6:Kontrol vs. 6:0.1 µg/mL	-17,33	-52,18 to 17,52	NS	0,9259
9:Kontrol vs. 9:0.1 µg/mL	-0,3333	-35,18 to 34,52	NS	>0,9999
12:Kontrol vs. 12:0.1 µg/mL	-5	-39,85 to 29,85	NS	>0,9999
15:Kontrol vs. 15:0.1 µg/mL	2,333	-32,52 to 37,18	NS	>0,9999
18:Kontrol vs. 18:0.1 µg/mL	16,67	-18,18 to 51,52	NS	0,9462
21:Kontrol vs. 21:0.1 µg/mL	11	-23,85 to 45,85	NS	0,9994
24:Kontrol vs. 24:0.1 µg/mL	-14,33	-49,18 to 20,52	NS	0,987
27:Kontrol vs. 27:0.1 µg/mL	38,33	3,482 to 73,18	*	0,0186

Tabel 6. Hasil perbandingan tukey uji lokomotor lalat dewasa antara kelompok kontrol dan 10 µg/mL

Tukey's multiple comparisons test	Mean Diff	95,00% CI of diff	Summary	Adjusted P Value
1:Kontrol vs. 1:10 µg/mL	2,333	-23,77 to 28,44	NS	>0,9999
3:Kontrol vs. 3:10 µg/mL	1	-25,10 to 27,10	NS	>0,9999
6:Kontrol vs. 6:10 µg/mL	-2,333	-28,44 to 23,77	NS	>0,9999
9:Kontrol vs. 9:10 µg/mL	-0,3333	-26,44 to 25,77	NS	>0,9999
12:Kontrol vs. 12:10 µg/mL	11	-15,10 to 37,10	NS	0,9834
15:Kontrol vs. 15:10 µg/mL	4,333	-21,77 to 30,44	NS	>0,9999
18:Kontrol vs. 18:10 µg/mL	25,33	-0,7698 to 51,44	NS	0,0659
21:Kontrol vs. 21:10 µg/mL	20,67	-5,437 to 46,77	NS	0,2803
24:Kontrol vs. 24:10 µg/mL	12	-14,10 to 38,10	NS	0,9619
27:Kontrol vs. 27:10 µg/mL	33,33	7,230 to 59,44	**	0,0027

Tabel 7. Hasil perbandingan tukey uji reproduksi jumlah pupa setelah terpapar tetrasiklin selama 5 hari

Tukey's multiple comparisons test	Mean Diff	95,00% CI of diff	Summary	Adjusted P Value
Kontrol vs. 0.001 µg/mL	-1,633	-19,07 to 15,80	NS	0,9899
Kontrol vs. 0.1 µg/mL	1,133	-16,30 to 18,57	NS	0,9965
Kontrol vs. 10 µg/mL	1,433	-16,00 to 18,87	NS	0,9931
0.001 µg/mL vs. 0.1 µg/mL	2,767	-14,67 to 20,20	NS	0,9548
0.001 µg/mL vs. 10µg/mL	3,067	-14,37 to 20,50	NS	0,9402
0.1 µg/mL vs. 10 µg/mL	0,3	-17,13 to 17,73	NS	>0,9999

Tabel 8. Hasil perbandingan tukey uji reproduksi jumlah lalat setelah terpapar tetrasiklin selama 5 hari

Tukey's multiple comparisons test	Mean Diff	95,00% CI of diff	Summary	Adjusted P Value
Kontrol vs. 0.001 µg/mL	-2,633	-17,26 to 12,00	NS	0,9364
Kontrol vs. 0.1 µg/mL	-0,7667	-15,40 to 13,86	NS	0,9982
Kontrol vs. 10 µg/mL	1,933	-12,70 to 16,56	NS	0,9729
0.001 µg/mL vs. 0.1 µg/mL	1,867	-12,76 to 16,50	NS	0,9754
0.001 µg/mL vs. 10 µg/mL	4,567	-10,06 to 19,20	NS	0,754
0.1 µg/mL vs. 10 µg/mL	2,7	-11,93 to 17,33	NS	0,932

Tabel 9. Hasil perbandingan tukey jumlah koloni bakteri lalat dewasa setelah terpapar tetrasiklin selama 35 hari

Tukey's multiple comparisons test	Mean Diff	95,00% CI of diff	Summary	Adjusted P Value
Kontrol vs. 0.001 µg/mL	1623000	1209774 to 2036226	****	<0,0001
Kontrol vs. 0.1 µg/mL	1555000	1141774 to 1968226	****	<0,0001
Kontrol vs. 10 µg/mL	1410000	996774 to 1823226	****	<0,0001
0.001 µg/mL vs. 0.1 µg/mL	-68000	-481226 to 345226	NS	0,9501
0.001 µg/mL vs. 10 µg/mL	-213000	-626226 to 200226	NS	0,4057
0.1 µg/mL vs. 10 µg/mL	-145000	-558226 to 268226	NS	0,6863

Lampiran 14. Perhitungan jumlah koloni bakteri asam laktat

Tabel 10. Hasil perhitungan jumlah koloni lalat dewasa pada hari ke-35 hari

Kelompok	Pengenceran				ALT	
	10^{-1}	10^{-2}	10^{-3}	10^{-4}		Rerata
Kontrol	TBUD	TBUD	TBUD	151	$1.5x10^{6}$	1.7×10^{6}
	TBUD	TBUD	TBUD	211	$2.1x10^{6}$	
	TBUD	TBUD	TBUD	167	16×10^{6}	
0.001 µg/mL	TBUD	TBUD	122	12	1.2×10^{5}	1.4×10^{5}
	TBUD	TBUD	108	10	1.1×10^{5}	
	TBUD	TBUD	191	15	1.9×10^{5}	
0.1 µg/mL	TBUD	TBUD	230	14	2.3×10^{5}	2.1×10^{5}
	TBUD	TBUD	201	15	2.0×10^{5}	
	TBUD	TBUD	194	12	1.9×10^{5}	
10 µg/mL	TBUD	TBUD	TBUD	33	3.3×10^{5}	3.5×10^{5}
	TBUD	TBUD	TBUD	39	3.9×10^{5}	
	TBUD	TBUD	TBUD	34	3.4×10^{5}	

Ket: Tidak bisa untuk dihitung (TBUD)