

## DAFTAR ISI

|  |             |
|--|-------------|
| <b>SKRIPSI</b>   | <b>i</b>    |
| <b>HALAMAN PENGESAHAN</b>  | <b>ii</b>   |
| <b>SURAT PERNYATAN</b>   | <b>iii</b>  |
| <b>KATA PENGANTAR</b>  | <b>iv</b>   |
| <b>DAFTAR ISI</b>  | <b>v</b>    |
| <b>DAFTAR GAMBAR</b>   | <b>vii</b>  |
| <b>DAFTAR TABEL</b>  | <b>viii</b> |
| <b>DAFTAR LAMPIRAN</b>   | <b>ix</b>   |
| <b>INTISARI</b>  | <b>x</b>    |
| <b>ABSTRACT</b>  | <b>xi</b>   |
| <b>BAB I PENDAHULUAN</b>   | <b>1</b>    |
| I.1 Latar Belakang   | 1           |
| I.2 Tujuan Penelitian  | 4           |
| I.3 Manfaat Penelitian   | 4           |
| <b>BAB II TINJAUAN PUSTAKA DAN PERUMUSAN HIPOTESIS</b>                           | <b>6</b>    |
| II.1 Tinjauan Pustaka  | 6           |
| II.1.1 Malaria   | 6           |
| II.1.2 Senyawa antimalaria   | 7           |
| II.1.3 Kurkumin  | 9           |
| II.1.4 Penambatan molekul  | 11          |
| II.1.5 <i>Plasmodium falciparum</i> Lactate Dehydrogenase (PfLDH)                | 11          |
| II.1.6 <i>Plasmodium falciparum</i> Enoyl Acyl Carrier Protein Reductase (PfENR) | 12          |
| II.1.7 Sintesis senyawa analog kurkumin  | 13          |
| II.1.8 Uji <i>in vitro</i> aktivitas antimalaria                                 | 13          |
| II.2 Perumusan Hipotesis   | 14          |
| II.2.1 Perumusan hipotesis 1   | 14          |
| II.2.2 Perumusan hipotesis 2   | 15          |
| II.2.3 Perumusan hipotesis 3   | 15          |
| II.2.4 Rancangan penelitian  | 16          |
| <b>BAB III METODE PENELITIAN</b>   | <b>18</b>   |
| III.1 Bahan  | 18          |
| III.2 Peralatan  | 18          |
| III.3 Prosedur   | 19          |
| III.3.1 Preparasi protein  | 19          |
| III.3.2 Preparasi ligan (kurkumin dan analog kurkumin)                           | 19          |
| III.3.3 Proses penambatan molekul  | 19          |
| III.3.4 Sintesis senyawa analog kurkumin   | 20          |
| III.3.5 Uji penghambatan parasit <i>P. falciparum</i>                            | 20          |
| III.3.6 Pembuatan preparat apusan tipis  | 20          |
| III.3.7 Perhitungan parasitemia  | 21          |
| <b>BAB IV HASIL PENELITIAN DAN PEMBAHASAN</b>                                    | <b>22</b>   |

|              |  |           |
|--------------|--|-----------|
| IV.1         | Penambatan Molekul   | 22        |
| IV.1.1       | <i>P. falciparum</i> Lactate Dehydrogenase (PfLDH) sebagai protein target antimalaria                | 23        |
| IV.1.2       | <i>P. falciparum</i> Enoyl Acyl Carrier Protein Reductase (PfENR) sebagai protein target antimalaria | 28        |
| IV.2         | Sintesis 2,5-bis(3-metoksibenzilidin)siklopentanon (Analog kurkumin A)                               | 33        |
| IV.3         | Uji Aktivitas Antimalaria  | 40        |
| <b>BAB V</b> | <b>KESIMPULAN DAN SARAN</b>  | <b>42</b> |
| V.1          | Kesimpulan   | 42        |
| V.2          | Saran  | 42        |
|              | <b>DAFTAR PUSTAKA</b>  | <b>43</b> |
|              | <b>LAMPIRAN</b>  | <b>49</b> |