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LAMPIRAN 1
Jadwal Penelitian

No	Kegiatan	2023						
		Juli	Agus	Sept	Okt	Nov	Des	Jan
1.	Pembuatan Draft Proposal Skripsi							
2.	Proses Pembimbingan							
3.	Seminar Proposal Skripsi							
4.	Perbaikan Proposal Skripsi							
5.	Pengumpulan Data							
6.	Analisis Data							
7.	Penyusunan Laporan Penelitian/Skripsi							
8.	Seminar Skripsi							
9.	Perbaikan Skripsi							
10.	Penyerahan Skripsi kepada Program Studi							

LAMPIRAN 2

Hasil Desain Primer

Desain Primer 100-120 Bp Dengan Menggunakan Gen COX1 *P.Falciparum* Sebagai Tempate

Primer pair 1

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GTGGTGGAAGCTGGATGGACT	Plus	20	415	434	59.31	55.00	2.00
Reverse primer	AGCGACTCCAGATACTAATAAACCC	Minus	24	524	501	57.91	41.67	4.00
Product length	110							

Primer pair 2

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TGACCCAACATTTGCAGGAGA	Plus	21	716	736	59.86	47.62	4.00
Reverse primer	TGACTAATTACTCCAAAAGCAGGT	Minus	24	823	800	58.12	37.50	8.00
Product length	108							

Primer pair 3

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TGGTGGAAGCTGGATGGACTT	Plus	20	416	435	58.56	50.00	2.00
Reverse primer	GACATAATACTAGCGACTCCAGA	Minus	23	535	513	57.06	43.48	4.00
Product length	120							

Primer pair 4

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TGCCAGGATTATTCGGAGGA	Plus	20	265	284	58.20	50.00	4.00
Reverse primer	ACAAAAGCAATTGGTTGTAACAGT	Minus	24	382	359	58.27	33.33	8.00
Product length	118							

Primer pair 5

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GTTATTGCTAACACTACCGGTTT	Plus	23	638	660	57.13	39.13	6.00
Reverse primer	GGATCTCCTGCAATGTTGGG	Minus	21	739	719	59.25	52.38	4.00
Product length	102							

Primer pair 6

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TTGCTAACACTACCGGTTTAACT	Plus	24	642	665	58.63	37.50	6.00
Reverse primer	TGGATCTCCTGCAAAATGTTGG	Minus	22	741	720	59.17	45.45	4.00
Product length	100							

Primer pair 7

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GGTGGAAGCTGGATGGACTTT	Plus	20	417	436	57.41	50.00	2.00
Reverse primer	AGACATAATACTAGCGACTCCAGA	Minus	24	536	513	58.38	41.67	4.00
Product length	120							

Primer pair 8

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TGGTGGAAGCTGGATGGACTTT	Plus	21	416	436	59.22	47.62	2.00
Reverse primer	GACATAATACTAGCGACTCCAGAT	Minus	24	535	512	57.50	41.67	4.00
Product length	120							

Primer pair 9

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GTGGTGGAAGCTGGATGGACTT	Plus	21	415	435	59.93	52.38	2.00
Reverse primer	TAGCGACTCCAGATACTAATAAACCC	Minus	25	525	501	57.79	40.00	4.00
Product length	111							

Primer pair 10

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	AGAGCAAAAAGGATTAACACTTGGT	Plus	24	570	593	58.86	37.50	6.00
Reverse primer	CCTCCAGTTAAACCGGTAGTGT	Minus	23	670	648	60.24	47.83	6.00
Product length	101							

Desain Primer 200-220 bp dengan Menggunakan Gen COX1 *P.malariae* sebagai template

Primer pair 1

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GGAAGTGTAGTTTGGGCTCATC	Plus	22	685	706	58.99	50.00	4.00
Reverse primer	CTCCTGTAGTTCACCAAAAAGT	Minus	22	904	883	57.91	45.45	3.00
Product length	220							

Primer pair 2

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GGAAGTGTAGTTTGGGCTCATCA	Plus	22	686	707	58.33	45.45	4.00
Reverse primer	ACTCCTGTAGTTCACCAAAAAGT	Minus	23	905	883	59.54	43.48	5.00
Product length	220							

Primer pair 3

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	AAGTGTAGTTTGGGCTCATCA	Plus	21	687	707	57.21	42.86	4.00
Reverse primer	ACTCCTGTAGTTCACCAAAAAG	Minus	22	905	884	57.91	45.45	5.00
Product length	219							

Primer pair 4

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	AGGAAGTGTAGTTTGGGCTCAT	Plus	22	684	705	59.36	45.45	4.00
Reverse primer	TCCTGTAGTTCACCAAAAAGTAA	Minus	23	903	881	57.37	39.13	3.00
Product length	220							

Primer pair 5

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GGAAGTGTAGTTTGGGCTCAT	Plus	21	685	705	57.93	47.62	4.00
Reverse primer	CTCCTGTAGTTCACCAAAAAGTA	Minus	23	904	882	57.78	43.48	3.00
Product length	220							

Primer pair 6

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GCCAGGATTATTTGGAGATTGG	Plus	24	48	71	59.96	45.83	3.00
Reverse primer	ACAGCAACAGGAGATAAAGACA	Minus	22	266	245	57.38	40.91	2.00
Product length	219							

Primer pair 7

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	AGGAAGTGTAGTTTGGGCTC	Plus	20	684	703	57.14	50.00	2.00
Reverse primer	TCCTGTAGTTCACCAAAAAGTAAA	Minus	24	903	880	58.00	37.50	3.00
Product length	220							

Primer pair 8

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GAAGTGTAGTTTGGGCTCATCAT	Plus	23	686	708	58.73	43.48	4.00
Reverse primer	ACTCCTGTAGTTCACCAAAAAGTA	Minus	24	905	882	59.34	41.67	5.00
Product length	220							

Primer pair 9

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	AAGTGTAGTTTGGGCTCATCAT	Plus	22	687	708	57.69	40.91	4.00
Reverse primer	TACTCCTGTAGTTCACCAAAAAGT	Minus	24	906	883	59.34	41.67	5.00
Product length	220							

Primer pair 10

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GGAAGTGTAGTTTGGGCTCATCA	Plus	23	685	707	60.56	47.83	4.00
Reverse primer	CTCCTGTAGTTCACCAAAAAGTAA	Minus	24	904	881	58.38	41.67	3.00
Product length	220							

Desain Primer 290-310 bp dengan Menggunakan Gen *COX1 P.ovale* sebagai template

Primer pair 1

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TCGGAGGAACTACAGGTGTTA	Plus	21	1070	1090	57.84	47.62	4.00
Reverse primer	AGCGTCTGGATAATCAGGAATACG	Minus	24	1362	1339	60.32	45.83	5.00
Product length	293							

Primer pair 2

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TTCGGAGGAACTACAGGTGTTA	Plus	22	1069	1090	58.50	45.45	4.00
Reverse primer	TCCATCCATTAAAGCGTCTGGAT	Minus	24	1375	1352	60.39	41.67	6.00
Product length	307							

Primer pair 3

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TACTTTCGGAGGAACTACAGGTG	Plus	23	1065	1087	59.49	47.83	3.00
Reverse primer	AAAGCGTCTGGATAATCAGGAA	Minus	22	1364	1343	57.51	40.91	5.00
Product length	300							

Primer pair 4

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TCGGAGGAACTACAGGTGTTAT	Plus	22	1070	1091	58.29	45.45	4.00
Reverse primer	AAGCGTCTGGATAATCAGGAAT	Minus	22	1363	1342	57.30	40.91	5.00
Product length	294							

Primer pair 5

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	ACCAGTTTAAACAGGTGGTGT	Plus	21	618	638	57.62	42.86	8.00
Reverse primer	AGTGTCTATCTCTAAACCTGTGGT	Minus	24	921	898	58.67	41.67	3.00
Product length	304							

Primer pair 6

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TACTTTCGGAGGAACTACAGGT	Plus	22	1065	1086	58.23	45.45	3.00
Reverse primer	AAAGCGTCTGGATAATCAGGAAT	Minus	23	1364	1342	57.96	39.13	5.00
Product length	300							

Primer pair 7

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TTTCGGAGGAACTACAGGTGTTA	Plus	23	1068	1090	59.10	43.48	4.00
Reverse primer	TTCCATCCATTAAAGCGTCTG	Minus	22	1376	1355	57.04	40.91	6.00
Product length	309							

Primer pair 8

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	CTTTCGGAGGAACTACAGGTGTTA	Plus	24	1067	1090	60.02	45.83	4.00
Reverse primer	CCATCCATTAAAGCGTCTGGATA	Minus	24	1374	1351	58.94	41.67	6.00
Product length	308							

Primer pair 9

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TTACTTTCGGAGGAACTACAGGTG	Plus	24	1064	1087	60.02	45.83	3.00
Reverse primer	AGCGTCTGGATAATCAGGAATAC	Minus	23	1362	1340	57.86	43.48	5.00
Product length	299							

Primer pair 10

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TTCGGAGGAACTACAGGTGTTAT	Plus	23	1069	1091	58.91	43.48	4.00
Reverse primer	CGTCTGGATAATCAGGAATACGTC	Minus	24	1360	1337	58.85	45.83	5.00
Product length	292							

Desain Primer 390-410 bp dengan Menggunakan Gen COX1 *P.vivax* sebagai template

Primer pair 1

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GAGGAGGTACTGGATGGACT	Plus	20	380	399	57.54	55.00	4.00
Reverse primer	ATGACTAATAACACCAAATGCTGG	Minus	24	789	766	57.54	37.50	4.00
Product length	410							

Primer pair 2

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TCCTACATTGCTGGAGATCCT	Plus	22	684	705	58.61	45.45	4.00
Reverse primer	TCCTGTAGTACCACCAAAGTAAA	Minus	24	1086	1063	57.50	37.50	6.00
Product length	403							

Primer pair 3

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	CCTACATTGCTGGAGATCCT	Plus	21	685	705	57.15	47.62	4.00
Reverse primer	CTCCTGTAGTACCACCAAAGTAAA	Minus	25	1087	1063	58.47	40.00	6.00
Product length	403							

Primer pair 4

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	ATCCTACATTGCTGGAGATCCT	Plus	23	683	705	59.02	43.48	4.00
Reverse primer	ATTACTCCTGTAGTACCACCAAAA	Minus	24	1091	1068	57.31	37.50	7.00
Product length	409							

Primer pair 5

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GATCCTACATTGCTGGAGATCCT	Plus	24	682	705	59.96	45.83	4.00
Reverse primer	CCTGTAGTACCACCAAAGTAAATG	Minus	25	1085	1061	57.86	40.00	6.00
Product length	404							

Primer pair 6

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TCCTACATTGCTGGAGATCCTA	Plus	23	684	706	58.44	43.48	4.00
Reverse primer	TCCTGTAGTACCACCAAAGTAAATG	Minus	25	1086	1062	57.92	36.00	6.00
Product length	403							

Primer pair 7

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	ACCAGCATTGCTGTTATTAGTC	Plus	23	765	787	57.10	39.13	4.00
Reverse primer	ACAAAATGGAAATGAGCGATTACA	Minus	24	1160	1137	57.73	33.33	3.00
Product length	396							

Primer pair 8

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	CCTACATTGCTGGAGATCCTA	Plus	22	685	706	57.04	45.45	4.00
Reverse primer	ATATTACTCCTGTAGTACCACCAAA	Minus	25	1093	1069	57.02	36.00	7.00
Product length	409							

Primer pair 9

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	ACCAGCATTGCTGTTATTAGTCA	Plus	24	765	788	58.68	37.50	4.00
Reverse primer	AAATGGAAATGAGCGATTACATAGT	Minus	25	1157	1133	57.19	32.00	4.00
Product length	393							

Primer pair 10

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	CCTACATTGCTGGAGATCCTATTT	Plus	25	685	709	58.70	40.00	4.00
Reverse primer	TATTACTCCTGTAGTACCACCAAAA	Minus	25	1092	1068	57.20	36.00	7.00

Desain Primer 490-510 bp dengan Menggunakan Gen COX1 *P.knowlesi* sebagai template

Primer pair 1

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	AGGAAGTGTGTATGGGCTC	Plus	20	867	886	57.21	50.00	2.00
Reverse primer	CCATCCATTAAAGCGTCTGGA	Minus	22	1374	1353	58.72	45.45	6.00
Product length	508							

Primer pair 2

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TAGGAAGTGTGTATGGGCTC	Plus	21	866	886	57.09	47.62	2.00
Reverse primer	CCATCCATTAAAGCGTCTGGAT	Minus	23	1374	1352	59.11	43.48	6.00
Product length	509							

Primer pair 3

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TTAGGAAGTGTGTATGGGCTC	Plus	22	865	886	57.78	45.45	2.00
Reverse primer	GCGTCTGGATAATCAGGAATACG	Minus	23	1361	1339	59.08	47.83	5.00
Product length	497							

Primer pair 4

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TGGATGGACTTTATATCCACCATTG	Plus	25	390	414	58.69	40.00	8.00
Reverse primer	TGAGCCCATACAACACTTCCT	Minus	21	887	867	59.01	47.62	4.00
Product length	498							

Primer pair 5

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	CGGTTCTCCAGAACTTGCATA	Plus	21	279	299	58.03	47.62	8.00
Reverse primer	TGACTAATAACTCCAAATGCTGGT	Minus	24	788	765	58.18	37.50	4.00
Product length	510							

Primer pair 6

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TGGATGGACTTTATATCCACCATT	Plus	24	390	413	57.47	37.50	8.00
Reverse primer	TGAGCCCATACAACACTTCCT	Minus	20	887	868	57.51	50.00	4.00
Product length	498							

Primer pair 7

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	ATTAGGAAGTGTGTATGGGCTC	Plus	23	864	886	58.22	43.48	2.00
Reverse primer	AGCGTCTGGATAATCAGGAATACG	Minus	24	1362	1339	60.32	45.83	5.00
Product length	499							

Primer pair 8

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	GGATGGACTTTATATCCACCATTGA	Plus	25	391	415	58.46	40.00	6.00
Reverse primer	ATGAGCCCATACAACACTTCCT	Minus	22	888	867	59.42	45.45	6.00
Product length	498							

Primer pair 9

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	ATTAGGAAGTGTGTATGGGCT	Plus	22	864	885	57.14	40.91	2.00
Reverse primer	AAAGCGTCTGGATAATCAGGAA	Minus	22	1364	1343	57.51	40.91	5.00
Product length	501							

Primer pair 10

	Sequence (5'→3')	Template strand	Length	Start	Stop	Tm	GC%	Self complementarity
Forward primer	TGGACTTTATATCCACCATTGAGT	Plus	24	394	417	57.42	37.50	6.00
Reverse primer	GAGCCCATACAACACTTCCT	Minus	20	886	867	57.21	50.00	2.00
Product length	493							

LAMPIRAN 3

Dokumentasi Penelitian



