

Supplement

1. Content of the primer3 parameter file

The primer3 parameter file specifies optimal size values in a specified range for the to-be-designed primers and probes, as well as their temperature optimum and range. In addition, various thresholds can be set for the stability of possible secondary structures formed by the primers and probes. The pipeline itself fills in the parameters without any given information as they contain relevant consensus regions for the design.

```
SEQUENCE_ID=  
SEQUENCE_TEMPLATE=  
SEQUENCE_EXCLUDED_REGION=  
SEQUENCE_INTERNAL_EXCLUDED_REGION=  
PRIMER_TASK=generic  
PRIMER_PICK_LEFT_PRIMER=1  
PRIMER_PICK_INTERNAL_OLIGO=1  
PRIMER_PICK_RIGHT_PRIMER=1  
PRIMER_OPT_SIZE=20  
PRIMER_MIN_SIZE=15  
PRIMER_MAX_SIZE=25  
PRIMER_OPT_TM=59  
PRIMER_MIN_TM=57  
PRIMER_MAX_TM=62  
PRIMER_INTERNAL_OPT_SIZE=30  
PRIMER_INTERNAL_MIN_SIZE=25  
PRIMER_INTERNAL_MAX_SIZE=35  
PRIMER_INTERNAL_OPT_TM=66  
PRIMER_INTERNAL_MIN_TM=62  
PRIMER_INTERNAL_MAX_TM=70  
PRIMER_TM_FORMULA=1  
PRIMER_EXPLAIN_FLAG=1  
PRIMER_SECONDARY_STRUCTURE_ALIGNMENT=1  
PRIMER_THERMODYNAMIC_OLIGO_ALIGNMENT=1  
PRIMER_THERMODYNAMIC_TEMPLATE_ALIGNMENT=1  
PRIMER_NUM_RETURN=10  
PRIMER_MAX_HAIRPIN_TH=47.0  
PRIMER_INTERNAL_MAX_HAIRPIN_TH=47.0  
PRIMER_MAX_END_STABILITA=100.0  
=
```


3. Detailed results of the dilution series

Note that only the results of dilution experiments in which amplification occurred are shown. In all other cases, the tables would be empty.

The increase is equivalent to the Δ CT between two dilution steps and should be between -3.3 and -3.5 for maximum efficiency, while the efficiency is given in %.

eno

Strain ID:	124322	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.661	0.142
200,000	20.927	0.107
20,000	24.295	0.070
2,000	27.477	0.187
200	31.008	0.140
20	34.892	0.044
	Increase:	-3.4166
	Efficiency:	96.20

Strain ID:	124664	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	16.543	0.343
200,000	20.207	0.294
20,000	23.576	0.140
2,000	26.807	0.050
200	30.163	0.088
20	33.668	0.313
	Increase:	-3.3839
	Efficiency:	97.48

Strain ID:	124670	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	18.112	0.143
200,000	21.525	0.077
20,000	25.050	0.004
2,000	28.259	0.155
200	31.947	0.217
20	35.098	0.332
	Increase:	-3.4116
	Efficiency:	96.39

Strain ID:	124622	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.424	0.300
200,000	20.626	0.107
20,000	23.964	0.157
2,000	27.380	0.045
200	30.823	0.115
20	34.483	0.391
	Increase:	-3.4085
	Efficiency:	96.51

Strain ID:	97437	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.716	0.030
200,000	21.181	0.097
20,000	24.647	0.018
2,000	27.968	0.006
200	31.669	0.026
20	34.846	0.506
	Increase:	-3.4411
	Efficiency:	95.26

Strain ID:	124982	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.737	0.066
200,000	21.343	0.009
20,000	24.666	0.019
2,000	28.012	0.071
200	31.453	0.206
20	34.850	0.314
	Increase:	-3.4069
	Efficiency:	96.57

Strain ID:	124984	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.467	0.096
200,000	20.949	0.033
20,000	24.299	0.033
2,000	27.638	0.026
200	30.987	0.000
20	34.646	0.295
	Increase:	-3.4098
	Efficiency:	96.46

Strain ID:	94881	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.249	0.088
200,000	20.860	0.169
20,000	24.123	0.022
2,000	27.593	0.000
200	30.792	0.036
20	34.213	0.146
	Increase:	-3.3739
	Efficiency:	97.88

Strain ID:	95377	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.086	0.341
200,000	20.833	0.022
20,000	24.282	0.043
2,000	27.549	0.046
200	30.991	0.095
20	34.244	0.133
	Increase:	-3.4152
	Efficiency:	96.25

Strain ID:	95422	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	18.384	0.023
200,000	21.851	0.012
20,000	25.215	0.040
2,000	28.576	0.050
200	31.924	0.099
20	35.387	0.835
	Increase:	-3.3885
	Efficiency:	97.29

Strain ID:	95424	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.069	0.101
200,000	20.628	0.043
20,000	23.929	0.090
2,000	27.205	0.296
200	30.842	0.057
20	33.456	0.136
	Increase:	-3.3101
	Efficiency:	100.50

Strain ID:	95427	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.751	0.215
200,000	21.260	0.029
20,000	24.752	0.023
2,000	28.097	0.003
200	36.506	0.461
20	34.781	0.393
	Increase:	-3.8353
	Efficiency:	82.28

Strain ID:	95430	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.762	0.141
200,000	21.317	0.058
20,000	24.593	0.006
2,000	28.056	0.041
200	32.031	0.082
20	34.708	0.010
	Increase:	-3.438
	Efficiency:	95.37

Strain ID:	124717	
Gene:	<i>eno</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	18.228	0.028
200,000	21.655	1.867
20,000	24.918	0.098
2,000	28.300	0.080
200	31.734	0.024
20	38.072	0.548
	Increase:	-3.7954
	Efficiency:	83.43

mecC

Strain ID:	94881	
Gene:	<i>mecC</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.336	0.001
200,000	20.882	0.094
20,000	24.242	0.015
2,000	27.902	0.071
200	31.093	0.036
20	34.865	0.323
	Increase:	-3.4839
	Efficiency:	93.66

Strain ID:	95377	
Gene:	<i>mecC</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.507	0.120
200,000	21.083	0.180
20,000	24.444	0.007
2,000	27.718	0.031
200	31.130	0.155
20	34.848	0.051
	Increase:	-3.432
	Efficiency:	95.60

Strain ID:	95422	
Gene:	<i>mecC</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	18.035	0.101
200,000	21.652	0.099
20,000	24.983	0.084
2,000	28.237	0.113
200	31.636	0.099
20	35.143	0.570
	Increase:	-3.3928
	Efficiency:	97.13

fusC

Strain ID:	124717	
Gene:	<i>fusC</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	16.768	0.363
200,000	19.729	0.372
20,000	24.193	0.944
2,000	26.588	1.041
200	30.009	0.663
20	33.207	0.617
	Increase:	-3.2979
	Efficiency:	101.01

lukF-PV (human)

Strain ID:	124322	
Gene:	<i>lukF-PV</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	18.812	0.225
200,000	22.925	0.553
20,000	26.344	0.226
2,000	30.323	0.043
200	33.795	0.226
20	37.617	0.322
	Increase:	-3.7318
	Efficiency:	85.34

Strain ID:	124664	
Gene:	<i>lukF-PV</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	18.538	0.285
200,000	22.610	0.061
20,000	26.378	0.087
2,000	29.976	0.006
200	33.685	0.175
20	37.655	0.387
	Increase:	-3.783
	Efficiency:	83.80

Strain ID:	124670	
Gene:	<i>lukF-PV</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	19.602	0.001
200,000	23.677	0.047
20,000	27.340	0.004
2,000	31.041	0.062
200	34.600	0.010
20	38.170	0.151
	Increase:	-3.6946
	Efficiency:	86.49

Strain ID:	95430	
Gene:	<i>lukF-PV</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	19.520	0.275
200,000	23.601	0.201
20,000	27.307	0.202
2,000	30.979	0.509
200	35.031	0.218
20	38.321	0.284
	Increase:	-3.7705
	Efficiency:	84.17

lukF-PV(P83) (bovine)

Strain ID:	124622	
Gene:	<i>lukF-b</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	16.119	0.136
200,000	19.487	0.316
20,000	22.778	0.088
2,000	26.260	0.004
200	31.832	0.038
20	34.152	0.882
	Increase:	-3.7337
	Efficiency:	85.28

Strain ID:	97437	
Gene:	<i>lukF-b</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.907	0.066
200,000	21.672	0.073
20,000	24.902	0.076
2,000	28.328	0.152
200	31.874	0.042
20	35.527	0.928
	Increase:	-3.4895
	Efficiency:	93.45

Strain ID:	124982	
Gene:	<i>lukF-b</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	15.947	0.423
200,000	19.267	0.025
20,000	22.822	0.108
2,000	27.922	0.295
200	30.898	0.029
20	33.894	0.328
	Increase:	-3.7064
	Efficiency:	86.12

Strain ID:	124984	
Gene:	<i>lukF-b</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	15.712	0.008
200,000	19.248	0.003
20,000	22.523	0.227
2,000	26.447	0.142
200	30.580	0.104
20	33.710	0.160
	Increase:	-3.6545
	Efficiency:	87.77

entA (sea)

Strain ID:	124664	
Gene:	<i>entA</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	16.611	0.161
200,000	19.641	0.878
20,000	23.382	0.042
2,000	26.905	0.202
200	30.122	0.237
20	33.832	0.824
	Increase:	-3.4591
	Efficiency:	94.58

Strain ID:	124717	
Gene:	<i>entA</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.016	0.093
200,000	20.262	0.188
20,000	23.839	0.235
2,000	27.283	0.132
200	30.864	0.181
20	33.939	0.025
	Increase:	-3.4246
	Efficiency:	95.89

entB (seb)

Strain ID:	124670	
Gene:	<i>entB</i>	
GE/ μ l	Ct avg.	Std. dev.
2,000,000	17.236	0.336
200,000	21.434	0.095
20,000	25.013	0.213
2,000	28.937	0.112
200	33.595	0.050
20	34.603	0.465
	Increase:	-3.6355
	Efficiency:	88.39