## **Primer3 Output**

```
PRIMER PICKING RESULTS FOR Puccinia recondita consensus consensus group 1
Template masking not selected
No mispriming library specified
No internal oligo mishyb library specified
Using 1-based sequence positions
0LIG0
                 start len
                                       gc% any th 3' th hairpin seg
                                tm
                   101
                         20
                              59.04
                                      50.00
                                               7.63
                                                      7.63
LEFT PRIMER
                                                              0.00 aagtgcttcagttgccatgg
RIGHT PRIMER
                   296
                        21
                              59.06
                                     47.62
                                               0.00
                                                     0.00
                                                             0.00 caacqccttacatattcqcca
                   253
                                             23.47
INTERNAL OLIGO
                        21
                              58.72
                                      47.62
                                                     0.00
                                                            45.52 gaagggtacaagtttgaccca
SEOUENCE SIZE: 310
INCLUDED REGION SIZE: 310
PRODUCT SIZE: 196, PAIR ANY TH COMPL: 0.00, PAIR 3' TH COMPL: 0.00
   1 cggactggatNtcctNtggtcgatgccgggatgagagagttatgggctacNggttggttg
   61 cacqatcqNataaqaqtaqttqtttcaaqcttctNtqttaaaqtqcttcaqttqccatqq
                                             >>>>>>>>>
  121 cgatgggggatgaagtaNttNtgggacacccttNtcgatgcagatttaNaaagtgatgct
  181 NttggttggcaatacNttaNtggtactNtcccNgatagccgggagtttgatNgcatagat
  241 aacccNcNqtttgaagggtacaagtttgacccaaatggcgaatatgtaaggcgttggctt
                  ^^^^^^^^^^^^
  301 ccagaNctct
KEYS (in order of precedence):
>>>>> left primer
<<<<< right primer
^^^^^ internal oligo
ADDITIONAL OLIGOS
                         <u>len</u> <u>tm</u> <u>gc% any th</u> 3' th hairpin seq
                    <u>start</u>
 1 LEFT PRIMER
                      96
                           22
                                58.98
                                         40.91
                                                  0.00
                                                         0.00
                                                                 0.00 tqttaaaqtqcttcaqttqcca
   RIGHT PRIMER
                      294
                           22
                                58.79
                                         40.91
                                                 0.00
                                                         0.00
                                                                 0.00 acgccttacatattcgccattt
                     119
                           19
                                59.79
                                         57.89
   INTERNAL OLIGO
                                                  0.00
                                                         0.00
                                                                 0.00 ggcgatgggggatgaagta
   PRODUCT SIZE: 199, PAIR ANY TH COMPL: 0.00, PAIR 3' TH COMPL: 0.00
```

Statistics

	con	too	in	in	not		no	tm	tm	high	high			high	
	sid	many	tar	excl	ok	bad	GC	too	too	any_th	3'_th	hair-	poly	end	
	ered	Ns	get	reg	reg	GC%	clamp	low	high		compl		X	stab	ok
Left	331	121	0	0	0	3	0	74	48	0	0	18	9	0	58
Right	347	121	0	0	0	0	0	115	5	0	0	10	0	0	96
Intl	960	238	0	0	0	0	0	169	269	0	0	0	0	0	284
Dair St	Pair State														

Pair Stats:

considered 3385, unacceptable product size 3383, primer in pair overlaps a primer in a better pair 1102, ok 2 libprimer3 release 2.4.0

(primer3\_results.cgi release 4.1.0)