Primer3 Output

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PRIMER PICKING RESULTS FOR Puccinia_recondita_consensus_consensus_group_2

Template masking not selected
No mispriming library specified
No internal oligo mishyb library specified
Using 1-based sequence positions
OLIGO            start  len      tm      gc%  any_th  3' th  hairpin  seq
LEFT PRIMER         13   20   58.90   55.00    0.00   0.00     0.00  tccgtatgactcctcaaccg
RIGHT PRIMER       175   21   59.23   47.62    0.00   0.00     0.00  tcttctccagcaacaggttca
INTERNAL OLIGO      63   20   59.61   55.00   13.91   0.00     0.00  gtagctgctgaatcgtccac
SEQUENCE SIZE: 459
INCLUDED REGION SIZE: 459

PRODUCT SIZE: 163, PAIR ANY_TH COMPL: 0.00, PAIR 3'_TH COMPL: 0.00

    1 ttttagcagcattccgtatgactcctcaaccgggagtNccaccggaagaagcaggagcag
                  >>>>>>>>>>>>>>>>>>>>

   61 ccgtagctgctgaatcgtccacgggcacctggactaccgtatggacagatggacttacta
         ^^^^^^^^^^^^^^^^^^^^

  121 gtcttgatcgatataaaggtcgatgctataatattgaacctgttgctggagaagataatc
                           <<<<<<<<<<<<<<<<<<<<<

  181 aattcatNgcttatgtagcctacccttagatctttttgaagaaggttctgttaccaatc

  241 tttttacttcaattgttggtaatgtttttcggNttcaaagctctacgtgctttacgtttag

  301 aagatttaagaattcctcctgcttactccaaaactttNataggaccaccccacggtatcc

  361 aggttgaaagagataaNttaaacaaatacggtcgtcctttattaggNtgtacaattaaac

  421 caaaattgggactatctgctaaaaactatggtagagctg


KEYS (in order of precedence):
>>>>>> left primer
<<<<<< right primer
^^^^^^ internal oligo

ADDITIONAL OLIGOS
                 start  len       tm      gc%  any_th  3' th  hairpin  seq
```

```
 1 LEFT PRIMER          155   21   59.23   47.62    0.00    0.00     0.00 tgaacctgttgctggagaaga
   RIGHT PRIMER         335   22   59.02   45.45    0.00    0.00     0.00 agttttggagtaagcaggagga
   INTERNAL OLIGO       189   23   58.14   43.48    0.00    0.00    45.06 gcttatgtagcctaccctttaga
   PRODUCT SIZE: 181, PAIR ANY_TH COMPL: 2.95, PAIR 3'_TH COMPL: 0.00

 2 LEFT PRIMER           16   20   58.52   55.00    6.32    0.00     0.00 gtatgactcctcaaccggga
   RIGHT PRIMER         181   23   58.23   43.48    0.00    0.00     0.00 tgattatcttctccagcaacagg
   INTERNAL OLIGO        63   20   59.61   55.00   13.91    0.00     0.00 gtagctgctgaatcgtccac
   PRODUCT SIZE: 166, PAIR ANY_TH COMPL: 0.00, PAIR 3'_TH COMPL: 0.00

 3 LEFT PRIMER          153   20   57.04   45.00    0.00    0.00     0.00 attgaacctgttgctggaga
   RIGHT PRIMER         330   22   58.55   45.45    5.23    0.00     0.00 tggagtaagcaggaggaattct
   INTERNAL OLIGO       189   23   58.14   43.48    0.00    0.00    45.06 gcttatgtagcctaccctttaga
   PRODUCT SIZE: 178, PAIR ANY_TH COMPL: 2.95, PAIR 3'_TH COMPL: 0.00
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Statistics

	con sid ered	too many Ns	in tar get	in excl reg	not ok reg	bad GC%	no GC clamp	tm too low	tm too high	high any_th compl	high 3'_th compl	high hair- pin	poly X	high end stab	ok
Left	1418	69	0	0	0	246	0	653	210	0	0	56	26	0	158
Right	1150	115	0	0	0	245	0	595	33	0	0	19	45	0	98
Intl	3187	162	0	0	0	6	0	1510	554	0	0	152	0	0	803

Pair Stats:
considered 11299, unacceptable product size 11295, primer in pair overlaps a primer in a better pair 2725, ok 4
libprimer3 release 2.4.0

(primer3_results.cgi release 4.1.0)