

PRIMER PICKING RESULTS FOR *Puccinia_recondita*_consensus_consensus_group_0

OLIGO	<u>start</u>	<u>len</u>	<u>tm</u>	<u>gc%</u>	<u>any th</u>	<u>3' th</u>	<u>hairpin</u>	<u>seq</u>
LEFT PRIMER	80	23	57.97	43.48	0.00	0.00	0.00	tctggcatcaaaagatactcctc
RIGHT PRIMER	273	20	57.91	50.00	10.34	0.00	0.00	gcaattgactccgtaccact
INTERNAL OLIGO	163	21	58.93	52.38	0.00	0.00	46.23	ggctctcaaccaggaagaatcc
SEQUENCE SIZE: 349								
INCLUDED REGION SIZE: 349								

PRODUCT SIZE: 194, PAIR ANY_TH COMPL: 0.00, PAIR 3'_TH COMPL: 0.00

1 ttgctaacgattttccggccaccttatggttcttcaaggatccttttatacagtatgtta

[illegible]

121 aatattatcttgtccatTTTTGGCAATgtcatttttatgtatggtctcaaccaggaagaa

181 tccatataaaccaattatccaagcattcctttgatttttgggttatctttcaagtatac
 ^^^

241 gaccgaatatttcagtggtacggagtcaattgctagaaaaattcgttttaatggataatg
<<<<<<<<<<<<<<<<<<<

301 ctatgaagaagcttgataNattatttccaattaNtcNaatgataggatc

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

start len tm gc% any th 3' th hairpin seq

1 LEFT PRIMER	68	22	58.11	40.91	11.83	0.00	0.00	aggaaaaatcgattctggcatca
RIGHT PRIMER	266	23	58.32	43.48	0.00	0.00	0.00	actccgtaccactgaaatattcg
INTERNAL OLIGO	163	21	58.93	52.38	0.00	0.00	46.23	ggtctcaaccaggaagaatcc
PRODUCT SIZE: 199, PAIR ANY_TH COMPL: 0.00, PAIR 3'_TH COMPL: 0.00								

2 LEFT PRIMER	75	23	57.01	39.13	0.00	0.00	0.00	tcgattctggcatcaaaagatac
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RIGHT PRIMER      272   22   58.34   45.45   0.00   0.00   0.00 caattgactccgtaccactgaa
INTERNAL OLIGO    163   21   58.93   52.38   0.00   0.00  46.23 ggtctcaaccaggaagaatcc
PRODUCT SIZE: 198, PAIR ANY_TH COMPL: 0.00, PAIR 3'_TH COMPL: 0.00

3 LEFT PRIMER      72   23   57.10   34.78   11.83   0.00   0.00 aaatcgattctggcatcaaaaga
RIGHT PRIMER     269   23   57.33   39.13   0.00   0.00   0.00 ttgactccgtaccactgaaatat
INTERNAL OLIGO    163   21   58.93   52.38   0.00   0.00  46.23 ggtctcaaccaggaagaatcc
PRODUCT SIZE: 198, PAIR ANY_TH COMPL: 0.00, PAIR 3'_TH COMPL: 0.00
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Statistics

	con	too	in	in	not		no	tm	tm	high	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	compl	pin	X	stab	ok
Left	1048	0	0	0	0	314	0	575	16	0	0	0	29	0	114
Right	911	36	0	0	0	286	0	498	0	0	0	32	29	0	30
Intl	2843	31	0	0	0	20	0	1822	123	0	0	6	22	0	819

Pair Stats:
considered 2347, unacceptable product size 2341, primer in pair overlaps a primer in a better pair 131, ok 6
libprimer3 release 2.4.0

(primer3_results.cgi release 4.1.0)