## **Results of Analysis**

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RUN OVERVIEW for run titled: "PRDX6Example"

Date and Time of run: 2024-09-08 10:58:14

Number of non excluded siRNAs found: 40

How many of top siRNAs overviewed here: 20

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## SEQUENCE INFORMATION

mRNA Sequence:

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Basic Run Settings Overview

Sequence Input Method: Text File

Input Type: cDNA

Min Length of siRNAs Generated: 19

Max Length of siRNAs Generated: 23

Run conducted with Default Parameters? No

Save Settings for future use: Yes

Output File Name: PRDX6Example

Overview of Parameters causing siRNA exclusion

Is the siRNA Unfolded in solution? If the answer was False, it was excluded.

Does the siRNA have U OR A in first position? If the answer was False, it was excluded.

Does the siRNA have a G or C in the last position? If the answer was False, it was excluded.

Is GC content within accepted Range? If the answer was False, it was excluded.

Is the Antisense strand preferably Loaded? If the answer was False, it was excluded.

Is the siRNA targeting a region within accepted area of mRNA? If the answer was False, it was excluded.

Does the 9th-14th position contain less than 50 percent G and C? If the answer was False, it was excluded.

Does the siRNA have a cytotoxic motif? If the answer was True, it was excluded.

Does the siRNA have a Immune Motif? If the answer was True, it was excluded.

Does RNA have nine G or C in a row? If the answer was True, it was excluded.

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## **Scoring Parameters**

Does the siRNA have U in first position? Desired Answer: True, Score if fullfilled: 163

Is the mRNA region mostly unpaired? Desired Answer: True, Score if fullfilled: 100

Is the 5' region of the siRNA targeting an unpaired mRNA region? Desired Answer: True, Score if fullfilled: 50

Is the 3' region of the siRNA targeting an unpaired mRNA region? Desired Answer: True, Score if fullfilled: 50

Does the siRNA have an A in 10th position? Desired Answer: True, Score if fullfilled: 30

Does the siRNA have a U in the 16th position? Desired Answer: True, Score if fullfilled: 30

Does the siRNA have a GGG sequence? Desired Answer: False, Score if fullfilled: 152

Does the siRNA have a CCC sequence? Desired Answer: False, Score if fullfilled: 174

Does the siRNA have a l	J in the 7t	h position?	Desired	Answer:	False,	Score if
fullfilled: 30		•			·	

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Sequence Options Overview

How far from Start Codon to Search: 75 bases

How near to Stop Codon to Search: 50 bases

Organisms for Off-Target Considerations: None

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REPORT for siRNA with sequence: 5'-uccuuaaauaugaugucgg- 3'
RNA length: 19
RNA start position on mRNA: 396
RNA end position on mRNA: 414
RNA score (out of 100): 87.16
Scoring Information

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a U in the 16th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-uccuuaaauaugaugucggg- 3'
RNA length: 20
RNA start position on mRNA: 395
RNA end position on mRNA: 414
RNA score (out of 100): 67.65
Scoring Information
Does the siRNA have U in first position? True, which is a positive, resulting in +

163 relative score

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a U in the 16th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a GGG sequence? True, which is a negative, resulting in missing 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-uugaugagaauggugcccug- 3'
RNA length: 20
RNA start position on mRNA: 1202
RNA end position on mRNA: 1221
RNA score (out of 100): 67.39
Scoring Information

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? True, which is a positive, resulting in + 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? True, which is a negative, resulting in missing 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-uugaugagaauggugcccugg- 3'
RNA length: 21
RNA start position on mRNA: 1201
RNA end position on mRNA: 1221
RNA score (out of 100): 67.39
Scoring Information

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? True, which is a positive, resulting in + 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? True, which is a negative, resulting in missing 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-ucaacuuguccuuacaccuc- 3'
RNA length: 20
RNA start position on mRNA: 451
RNA end position on mRNA: 470
RNA score (out of 100): 66.62
Scoring Information

Is the mRNA region mostly unpaired? False, which is a negative, resulting in missing 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-ucaacuuguccuuacaccucug-	3'
RNA length: 22	
RNA start position on mRNA: 449	
RNA end position on mRNA: 470	
RNA score (out of 100): 66.62	
Scoring Information	

Is the mRNA region mostly unpaired? False, which is a negative, resulting in missing 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-ugucgggguuguaauuggg- 3'	
RNA length: 19	
RNA start position on mRNA: 383	
RNA end position on mRNA: 401	
RNA score (out of 100): 63.8	
Scoring Information	

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a GGG sequence? True, which is a negative, resulting in missing 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-uç	gucgggguuguaauugggg- 3'
RNA length: 20	
RNA start position on mRNA: 382	
RNA end position on mRNA: 401	
RNA score (out of 100): 63.8	
Scoring Information	

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a GGG sequence? True, which is a negative, resulting in missing 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-ugucgggguuguaauuggggg- 3'
RNA length: 21
RNA start position on mRNA: 381
RNA end position on mRNA: 401
RNA score (out of 100): 63.8
Scoring Information

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a GGG sequence? True, which is a negative, resulting in missing 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-ugucgggguuguaauugggggug- 3'
RNA length: 23
RNA start position on mRNA: 379
RNA end position on mRNA: 401
RNA score (out of 100): 63.8
Scoring Information

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a GGG sequence? True, which is a negative, resulting in missing 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-ucgggguuguaauuggggg- 3'
RNA length: 19
RNA start position on mRNA: 381
RNA end position on mRNA: 399
RNA score (out of 100): 59.95
Scoring Information

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? True, which is a negative, resulting in missing 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-auccuuaaauaugaugucg- 3'
RNA length: 19
RNA start position on mRNA: 397
RNA end position on mRNA: 415
RNA score (out of 100): 58.54
Scoring Information

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-auccuuaaauaugaugucgg- 3'
RNA length: 20
RNA start position on mRNA: 396
RNA end position on mRNA: 415
RNA score (out of 100): 58.54
Scoring Information

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-uuggacucguaguacaccc- 3'
RNA length: 19
RNA start position on mRNA: 666
RNA end position on mRNA: 684
RNA score (out of 100): 57.12
Scoring Information

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? True, which is a negative, resulting in missing 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-aguuccuuaaaucgcucgg- 3'
RNA length: 19
RNA start position on mRNA: 360
RNA end position on mRNA: 378
RNA score (out of 100): 53.4
Scoring Information
Does the siRNA have U in first position? False, which is a negative, resulting in missing 163 relative score
Is the mRNA region mostly unpaired? False, which is a negative, resulting in missing 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a U in the 16th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-aaagcguucaacuuguccuuac- 3'
RNA length: 22
RNA start position on mRNA: 456
RNA end position on mRNA: 477
RNA score (out of 100): 53.4
Scoring Information
Does the siRNA have U in first position? False, which is a negative, resulting in missing 163 relative score
Is the mRNA region mostly unpaired? False, which is a negative, resulting in missing 100 relative score
Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score
Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score
Does the siRNA have an A in 10th position? True, which is a positive, resulting in + 3 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a U in the 16th position? True, which is a positive, resulting in +

30

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

30 relative score

REPORT for siRNA with sequence: 5'-aagcguucaacuuguccuuacac- 3'
RNA length: 23
RNA start position on mRNA: 454
RNA end position on mRNA: 476
RNA score (out of 100): 49.55
Scoring Information

Is the mRNA region mostly unpaired? False, which is a negative, resulting in missing 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-uugaugagaauggugcccuggg- 3'
RNA length: 22
RNA start position on mRNA: 1200
RNA end position on mRNA: 1221
RNA score (out of 100): 47.88
Scoring Information

Is the mRNA region mostly unpaired? True, which is a positive, resulting in + 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? True, which is a positive, resulting in + 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? True, which is a negative, resulting in missing 152 relative score

Does the siRNA have a CCC sequence? True, which is a negative, resulting in missing 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score

REPORT for siRNA with sequence: 5'-acuuguccuuacaccucug- 3'				
RNA length: 19				
RNA start position on mRNA: 449				
RNA end position on mRNA: 467				
RNA score (out of 100): 45.7				
Scoring Information				

Is the mRNA region mostly unpaired? False, which is a negative, resulting in missing 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? True, which is a positive, resulting in + 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? True, which is a negative, resulting in missing 30 relative score

REPORT for siRNA with sequence: 5'-aacuuguccuuacaccucug- 3'
RNA length: 20
RNA start position on mRNA: 449
RNA end position on mRNA: 468
RNA score (out of 100): 45.7
Scoring Information

Is the mRNA region mostly unpaired? False, which is a negative, resulting in missing 100 relative score

Is the 5' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Is the 3' region of the siRNA targeting an unpaired mRNA region? False, which is a negative, resulting in missing 50 relative score

Does the siRNA have an A in 10th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a U in the 16th position? False, which is a negative, resulting in missing 30 relative score

Does the siRNA have a GGG sequence? False, which is a positive, resulting in + 152 relative score

Does the siRNA have a CCC sequence? False, which is a positive, resulting in + 174 relative score

Does the siRNA have a U in the 7th position? False, which is a positive, resulting in + 30 relative score