

Supplemental Figure 5: Sequences and context of SDR5 elements

Named SDR5 elements of *Nostoc punctiforme*

Replicon	Site	Ctxt	SDR and flanking region
SDR5.1 (37)			
Npun.chrom	48136F	P	AAATTTGGATAGTTTGTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCCAGTCATCCAAATTA
Npun.chrom	74428F	D	GGCGACTTTGGCATACTGCGTAGGCCGTAGCCCGTCGTAGACATCGGGAAAAAATGTTATCCA
Npun.chrom	174992B	P	AACCTTTATATAGAAGTGCGTAGGCCGTAGCCCGTCGTAGACATCGGACTCCTTATTCTTCAT
Npun.chrom	508516F	P	CGTTATCTATAGGTGTTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCTGTGACTCCTCTGTG
Npun.chrom	509418B	I	GTACAGCAAGTTGAACACGCTAGGCCGTAGCCCGTCGTAGACATCGGCCCAACTCGACAACAC
Npun.chrom	566640F	I	ATGTATACTTCACAGGTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCTAGGCGCATCATCTAG
Npun.chrom	628067B	P	TTGCCGAATGGTGCAGTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCAGATGCGGCGTGGAAT
Npun.chrom	930868F	P	CAACAGGTACGGTTATTGCGTAGGCCGTAGCCCGTCGTAGACATCGGACATTGCTATAAAACC
Npun.chrom	1040653B	C	ATTAAGTAAATAAGGATGCGTAGGCCGTAGCCCGTCGTAGACATCGGACAAGTAAATTAGGC
Npun.chrom	1204133F	D	TGTTTTAGTTAGCTTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCTCTCTAAATATTCACC
Npun.chrom	1455749B	I	GTTGAAATAAAGTCGGTGCGTAGGCCGTAGCCCGTCGTAGACATCGGAACATAGCCTTCTTTG
Npun.chrom	1808709B	P	TAGGCTTTGGCGGTGGTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCTCTGGTGATTACACA
Npun.chrom	1966841B	D	GAAAAATGTGTATATTTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCAGGCCAAAGTTACAAT
Npun.chrom	2195937F	I	GCTCGGTATTGGAAATAGCGTAGGCCGTAGCCCGTCGTAGACATCGGAGTATGGTCGATTCCC
Npun.chrom	2359652F	P	TATTAGGCTAAAAATTGAGCGTAGGCCGTAGCCCGTCGTAGACATCGGTTTTTCAGTGAAGAAG
Npun.chrom	2599252B	P	ATCTACCAAAATTTTAGCGTAGGCCGTAGCCCGTCGTAGACATCGGTATGAAATTTCTCGTA
Npun.chrom	3001482F	I	CTAATACTTAAGCTGCGCGTAGGCCGTAGCCCGTCGTAGACATCGGTTCTATCTTCTCACT
Npun.chrom	3322672B	C	CAACTTCAAGCGTAATAGCGTAGGCCGTAGCCCGTCGTAGACATCGGTTTCAATACGGTTCGG
Npun.chrom	3331049B	I	GCCTCCGCTTGAAAGTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCTAACTCGCCCTGAAT
Npun.chrom	3682814B	D	ACAAGTCTAATAAAGATGCGTAGGCCGTAGCCCGTCGTAGACATCGGCCAATGGTTTTACTGT
Npun.chrom	4064623B	P	ACCAAGAGCTTACCCAAAGCGTAGGCCGTAGCCCGTCGTAGACATCGGTAATACGAGGAGAAAC
Npun.chrom	4068329F	D	AAGCAAAATTTAATCAAGCGTAGGCCGTAGCCCGTCGTAGACATCGGAACATAGAAAGAGACA
Npun.chrom	4345877B	I	TTGTAAGTTCAACGGCTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCGGACTTTGACTAAGT
Npun.chrom	4668281B	D	AGAAAGAAATTTTAGTTGCGTAGGCCGTAGCCCGTCGTAGACATCGGAACCATCAACTAGCC
Npun.chrom	4997276F	I	CTAAACGTAATGCAACTGCGTAGGCCGTAGCCCGTCGTAGACATCGGTCCAGCTTCGACATTC
Npun.chrom	5079627B	P	ACGTGCTAAAAACACTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCAAAACCCTACGAAGG
Npun.chrom	5635218F	P	GGCAAAATAAATGAGTCGCGTAGGCCGTAGCCCGTCGTAGACATCGGATTTTAGCTTTAGTGT
Npun.chrom	5717616F	C	TTCAACAACACATAATAGCGTAGGCCGTAGCCCGTCGTAGACATCGGTTGTGATTTACGCTT
Npun.chrom	5761874F	P	CTGATGTCAACAGTTCTGCGTAGGCCGTAGCCCGTCGTAGACATCGGAAAAGCTTTAATGCAA
Npun.chrom	5878206B	C	GCTATAGCTTTTCACCTACGCGTAGGCCGTAGCCCGTCGTAGACATCGGACTACTGGGAACAATC
Npun.chrom	6276767B	C	AAGTTTTTACGTAAAGTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCTCTTTTTTATTTAGC
Npun.chrom	6376791F	P	CCAATTTTATGCTGAGTGCGTAGGCCGTAGCCCGTCGTAGACATCGGCTCATTTGAGCTTTACAC
Npun.chrom	6523398F	I	CGGACATCTAACAACACGCGTAGGCCGTAGCCCGTCGTAGACATCGGTTCTACCAATCGATGC
Npun.chrom	7006979B	P	CTGGTTGTGCAAAATGGCGTAGGCCGTAGCCCGTCGTAGACATCGGACTCCAAAATTACTTC
Npun.chrom	7230751B	D	TAAATTCAGGATCCAGAGCGCGTAGGCCGTAGCCCGTCGTAGACATCGGTAAATTATCTTATGAA
Npun.chrom	7350333B	P	TTTGGCATTGCTCGGTAGCGTAGGCCGTAGCCCGTCGTAGACATCGGCTACGATGGGCGGATA
Npun.chrom	7768881F	I	TGAACACGTTCTCTAGCGTAGGCCGTAGCCCGTCGTAGACATCGGCCGATCAAATTACAAG
A7120:chrom	2360562F	I	CTTTTACTTCGCTCGGCGCGTAGGCCGTAGCCCGTCGTAGACATCGGTTTGAGGCATTTTTTG
Avar:chrom	3807624B	I	CAAAAAGTGTTGTTGTTGTTGCGTAGGCCGTAGCCCGTCGTAGACATCGGTTGATAGTCAAGATTG
nod-048	29937B	I	ATGCCAAAGCGACTGGGCGCGTAGGCCGTAGCCCGTCGTAGACATCGGCTCTCAAACATCATCGC
SDR5.2 (9)			
Npun.chrom	2314677F	P	AAATGAAATGGGACTTTGCGTAGGCCGTAGCCCGCCGTAGGCATCGGATCTACGTCGTTATGA
Npun.chrom	2349751F	D	GCTTACTATAAATGTGCGCGTAGGCCGTAGCCCGCCGTAGGCATCGGTTTTCTTTAGAGACTG
Npun.chrom	4369994F	I	GTTAGCCGAGATTCTTTGCGTAGGCCGTAGCCCGCCGTAGGCATCGGCTTTTCCGACAAAGGC
Npun.chrom	4507573B	I	TTCCTACAATAATCACCAAGCGTAGGCCGTAGCCCGCCGTAGGCATCGGACTAATTATCGGCCTA
Npun.chrom	6617733B	C	CGACACGATTGGTACGAGCGTAGGCCGTAGCCCGCCGTAGGCATCGGTTGTAATCAGTTATGT
Npun.chrom	7045111B	I	AAAGTACTTCTGTTGCTGCGTAGGCCGTAGCCCGCCGTAGGCATCGGATCTTCACCTCAATC
Npun.chrom	8053487F	P	CTTAAATATATTGATTAGCGTAGGCCGTAGCCCGCCGTAGGCATCGGACCTTTTTTATCCGAC
Npun.pNpA	163326F	D	TCTTTCGTAATCCAGAGCGCGTAGGCCGTAGCCCGCCGTAGGCATCGGTACTTACAAAGTTTTG
Npun.pNpA	179602F	C	TCTTTCGTAATCCAGAGCGCGTAGGCCGTAGCCCGCCGTAGGCATCGGTACTTACAAAGTTTTG
A7120:pAlpha	163802F	P	AAGCAGCAGTGGGTAGTGCGTAGGCCGTAGCCCGCCGTAGGCATCGGCTCTTGTAAGAAGAAGGC

SDR5.3 (8)

Npun.chrom	2137990B	D	TGGCACTTTTCACATTGGCGTAGGGCGAGCCCGCCGTAGGCATCGCAGCAGGGAACAAAGGA
Npun.chrom	2402810B	D	TGGCACTTTTCACATTGGCGTAGGGCGAGCCCGCCGTAGGCATCGCAGCAGGGAACAAAGGA
Npun.chrom	2575141B	D	TGGCACTTTTCACATTGGCGTAGGGCGAGCCCGCCGTAGGCATCGCAGCAGGGAACAAAGGA
Npun.chrom	2854584F	D	TGGCACTTTTCACATTGGCGTAGGGCGAGCCCGCCGTAGGCATCGCAGCAGGGAACAAAGGA
Npun.chrom	3878598B	P	TGGCACTTTTCACATTGGCGTAGGGCGAGCCCGCCGTAGGCATCGCAGCAGGGAACAAAGGA
Npun.chrom	3881471B	P	CTAAGCGATGCCAAGAGCGTAGGGCGAGCCCGCCGTAGGCATCGCTCTTAGGCAATTGCTA
Npun.chrom	4038723B	D	TGGCACTTTTCACATTGGCGTAGGGCGAGCCCGCCGTAGGCATCGCAGCAGGGAACAAAGGA
Npun.chrom	5468832B	I	GTCAATATTTTGGCACTGCGTAGGGCGAGCCCGCCGTAGGCATCGCATTGTGGGAGCGAAGC

SDR5.4 (5)

Npun.chrom	1054910F	C	TTTATTCGCCAAGGTTAGCGTAGGGCGTAGCCCGCCGAGGCATCGCTTAATCGATTATGGCT
Npun.chrom	1499084F	I	ATAGTGGCTTTACGAATGCGTAGGGCGTAGCCCGCCGAGGCATCGCTTTTTCGCTACTCCGGC
Npun.chrom	2313853B	D	TTACCACAGAAAGCGAACTGTAGGGCGTAGCCCGCCGAGGCATCGCTCTATTAAATTAAGTC
Npun.chrom	3288694B	I	GACCTGATTTTGGCGATGCGTAGGGCGTAGCCCGCCGAGGCATCGCTATAGCGAACACCACC
Npun.chrom	7545493F	P	TATATCGTCATATTTTGCATAGGGCGTAGCCCGCCGAGGCATCGCTTGGGAATTAATAAATT
nod-002	192111F	C	AAATGTACTTTAATTTAGCGTAGGGCGTAGCCCGCCGAGGCATCGCTGTGCCAGTTGCGTA
nod-014	2489B	C	AAATGTACTTTAATTTAGCGTAGGGCGTAGCCCGCCGAGGCATCGCTGTGCCAGTTGCGTA
nod-022	934B	D	AAATGTACTTTAATTTAGCGTAGGGCGTAGCCCGCCGAGGCATCGCTGTGCCAATTGCGTA
nod-022	2408F	I	AAATGTACTTTAATTTAGCGTAGGGCGTAGCCCGCCGAGGCATCGCTGTGCCAGTTGCGTA
nod-032	2188F	I	AAATGTACTTTAATTTAGCGTAGGGCGTAGCCCGCCGAGGCATCGCTGTGCCAGTTGCGTA
nod-033	39137B	C	AAATGTACTGTAATTTAGCGTAGGGCGTAGCCCGCCGAGGCATCGCTGTGCCAGTTGCGTA
nod-055	9999F	D	AAATGTACTTTAATTTAGCGTAGGGCGTAGCCCGCCGAGGCATCGCTGTGCCAGTTGCGTA
nod-055	12285F	P	AAATGTACTTTAATTTAGCGTAGGGCGTAGCCCGCCGAGGCATCGCTGTGCCAGTTGCGTA
nod-071	15003B	P	TCATCCCTTGATAAATAAGCGTAGGGCGTAGCCCGCCGAGGCATCGCTAAAAAGTGTGGAAA

SDR5.5 (4)

Npun.chrom	179377F	I	GATAAAGAAAACTGGTGGGTAGGTGTAGCCCGTCGTAGACATCGCTGGTGATAGTGTCTAA
Npun.chrom	875710F	C	AAATTAAGAGAGGCAATGGGTAGGTGTAGCCCGTCGTAGACATCGCGATCTCCAAAATTGAC
Npun.chrom	1728159B	I	GCTAATTGTTTCAGAGAGCGGTAGGTGTAGCCCGTCGTAGACATCACTGTTTACATGGCGATC
Npun.chrom	6444283F	C	TTTTTTAAATAAAAAAGTGGGTAGGTGTAGCCCGTCGTAGACATCGCTCGATCGCATTTTATC

SDR5.6 (4)

Npun.chrom	1253854F	I	TGCGTTTTCAATTTTGGCGTTGGCTTTGCCCGCCGTAGGCATCGCCAGTTCAATGGCTATA
Npun.chrom	4522840F	I	GCGTTGGCTTCTCCTGTGGCGTTGGCTTTGCCCGCCGTAGGCATCGCTGCTTGCCGACTCAA
Npun.chrom	5026314F	P	AAATATTGGGAATATTGGCGTTGGCTTTGCCCGCCGTAGGCATCGCATTTTAGGTATAAGAG
Npun.chrom	7254207F	I	CCCAAGAAGGCTTTAATGGCGTTGGCTTTGCCCGCCGTAGGCATCGCGGAAGGATTAGCTGC

SDR5.7 (3)

Npun.chrom	7349509B	P	CTTGTTTTGCTCGATAGCGTAGGGCGAGCCCGTCGTAGACATCGCTACGCCATCGCACCA
Npun.chrom	7475033F	C	GCTGCTTGAAAGAAATGGGTAGGGCGAGCCCGTCGTAGACATCGCACTTCAACTAAAGAGC
Npun.pNpD	35136F	C	CTTTATTGGTAGTGCCAAGCGTAGGGCGAGCCCGTCGTAGACATCTACTTTTCCCGTTAAGTC

Other SDR5s

Npun.chrom	3836560F	I	GCTCGTGCAACCTCAAGGCGTAGGGCGAAGCCCGCCGAGGCATCGCTAAATTTATTTCTGTTT
Npun.chrom	5529346F	I	TAATCTCTTTAAGATTAAGCGTAGGGCGAAGCCCGCCGAGGCATCGCTTCTTGTGGGCTAGAT
Npun.chrom	1704769F	I	GTGCGGCGTTTACCAGTGGGTAGGGCGAGCCCGCCGAGGCATCAGTCCCTTGAAAAATATAG
Npun.pNpA	319043B	P	CCCCATAGAATCAGAGGGGTAGGGCGAGCCCGCCGAGGCATCGCTTATCATCAGTTTCA
A7120.pAlpha	57910F	P	AAAAATTCAGATTCCAGAGGTAGGGCGAGCCCGCCGAGGCATCGCTTTATCACTCAATTTT
Npun.chrom	455652F	C	GTAGGGTAGGGTATGGTGGGTAGGGCGAGCCAGCCGTAGGCATCGCTTTAGCATTTAGACAG
Npun.chrom	2783883B	P	CGACTGACAAAACAAAGTGGTAGGGCGTAGCCAGCCGTAGGCATCGCTTAGTTGTCTATTCCA
Npun.chrom	796161B	D	GTTGCGGTAGACATTTTGGGTAGGGCGTAGCCCGTCGAGACATCGCTTACCATCTGACATAG
Npun.chrom	2461838F	D	GGCAGAAAATTTCACTGCGGTAGGGCGTAGCCCGTCGAGACATCGCTGTAGTGCCTTAGGAT
Npun.chrom	1355627F	I	AGCTGGGGTTGTAGTGCAGGTAGGGCGTAGCCCGTCGAGACATCGCTTTTGCAAACTATACC
Npun.chrom	5718202B	P	TATTAGGCCAAAAGCTGGGTAGGGCGTAGCCCGTCGAGACATCGCTCTAGAAAAATAAGTGT
Npun.chrom	4386626F	I	TTACTGCTGGTAGTTTTGGGTAGGGCGTAGCTCGCCGAGGCATCGCTTTGTGTTTCTAGGCG
Npun.chrom	7773383F	I	GTGGGAGTGAAGAGGAAAGGTAGGGCGTAGCTCGCCGAGGCATCGCAGCTTTATTACACGAT

Npun.chrom	6340031B	P	AAAATTATTTAAGAGTAGCGTAGGGCTTTGCCCGCCGTAGGCATCGG	TCCATCAAAAAAGTTA
Npun.chrom	7351944B	I	GATGCTTCGGCTGAATTCGCGTAGGGCTTTGCCCGCCGTAGGCATTG	TGGCCTGTACCATGAA
Npun.chrom	2133613F	I	GAGTTGCTTGGTTTGGTGCGAAGGCGCTGCCCGCCGTAGGCATCGG	AGCTAGCTTGATTATG
Npun.chrom	5952579B	C	ACTGCCCAACTAGGAATGTTTAAATGTAGCCCGTCGTAGACATTG	TACATCTACCATTCGCG
Npun.chrom	2171119B	I	GATGCTTCGGCTGTTTCGCGTAAGCAAGCTCGTCGTAGACATCGG	TAATATCAATTACCAC
Npun.chrom	2188862F	I	CCGCCAGAGCTACGAGAGCGTAAGCGCAGCCCGTCGTAGGCATCGG	TATCAACTCGGTAAAA
Npun.chrom	6301846B	I	GCTTTCTCTGCTTGCTTCGCGTAAGCGGAGCTCGTCGTAGACATCGG	TAATATCTGTAGTGCT
Npun.chrom	54925B	D	TAGTCTGAAGCTTAGGAGCGTAAGCGTAGCCCGTCGTAGACATCGG	TTTTGTCTCTTGCTG
Npun.chrom	7880219F	I	AAGCTTAATCCTTGTTCGCGTAAGCGTAGTCGCCGAGGCATCGG	CTTGCGTATACAGTGC
Npun.chrom	1058760B	I	CAACATTTGGAAAAGTTTACGTAGGCACAGCCCGCCGACGGCATCGG	CAGCCCCAGACAATAA
Npun.pNpC	68173F	I	TTGCACTTGGGAAAATTTCGCGTAGGCACAGCCCGTCGTAGACATCGG	TGATGCTGTTTCATATA
Npun.chrom	4725633F	P	ACACTCATTGCCAAAGCGCGTAGGCATAACCTTCGTAGACATTG	CTAGCTATTTTCGAGTT
Npun.chrom	6964515B	I	TGATAGTTAGGTTATTTACGTAGGCATAAGCCCGCCGACGGCATCGG	AAGTGCCCCACTCGTC
Npun.chrom	2419366B	D	GGGTTAGTAGGATTTCTCGCGTAGGCATAAGCCCGCCGACGGCATCGG	TTGTAACTTTACTAGT
Npun.chrom	1153182F	P	TGACTATTCGTGAAACTCGCGTAGGCATAGCCCGTCATAGACATCT	TGTTTCTTAAACGTA
Npun.chrom	3648289F	P	TTCAAGCAGTTAATAATCGCGTAGGCATAAGCCCGTCGTAGACATCGG	GCTCACTCTTCCATAA
Npun.chrom	673426B	P	TTTTTCAGCCCACTACTCGCGTAGGCATAAGCCCGTCGTAGATATCGG	TACATAGGGGAAATTG
Npun.chrom	4463372B	D	GGGGTTTTTTTCTAGTTCGCGTAGGCATAAGCCCTTCGTAGACATG	GCGTCAACCGTGAATTT
Npun.chrom	5407134B	C	CTAAACAGGCAATAGCGCTTAGGCATAAGCCCTTCGTAGACATCGG	CATTATTCTTACAAAA
Npun.chrom	8012770B	P	GGTATAATAAGCCGCAAGCGTAGGCATAAGCCTGTCGTAGACATCGG	TAGTTTTTGGAGAGCT
Npun.chrom	7175107F	P	CCAAATTTATAACTGCGACGTAGGCGCAGCCAGCCGACGGCATCGG	CGATTTTAGGCTTTAG
Npun.pNpA	299513B	C	GGTAATTCATAAATGAGCGTAGGCGCAGCCCATCGTAGACATCGG	ACTATGGCAAAATGTC
Npun.chrom	2661286B	C	ACTCAATATCAAGTACTCGGTAGGCGCAGCCCGCCATAGGCATCGG	AGTAGTACAGGATCAA
Npun.chrom	4824761B	P	TCCATAAATCTAAAATTCGCGTAGGCGCAGCCCGTCATAGACATCGG	TTTAAAGGTCGAGCGA
Npun.pNpA	147446F	I	ATTCCCCAAACCAACATCGTAGGCGCAGCCTGTCGTAGACATTG	TGTTTCTAAGCACTAA
Npun.chrom	1091537B	P	TAGATTGAAAAGGAATACGTAGGCGCATCCGCCGTAGGCATCGG	TGCAATACTGCTAAGT
Npun.chrom	4853722F	P	AAATTCAGATAATTCTCGCGTAGGCGCTGCCCGCCGTAGGCATCGG	ACTTATCTTCAGTTAC
Npun.chrom	2660912F	I	AAGGTGAAAGAGTTTTTCGCGTAGGCGTAACCCGCCGACGGCATCGG	TTGCTGCTAGAACATA
Npun.chrom	1228713B	C	CGCGGATGGATTGAAATCGGTAGGCGTAGCCACCCGACGGCATCGG	TCCCCAGTTCTTGAC
Npun.chrom	4985914B	C	TCATTATTTGACGGAGTCGCGTAGGCGTAGCCACCCGACGGTATCGG	CCCTTTTCCCTACGTG
Npun.chrom	6367729F	D	TGTATTCAATCACAAGGATAGGCGTAGGCCATCGTACACATCA	ACGTCCTAGACTTAT
Npun.chrom	6732990B	I	AATTGCTCAGTTGGGTTGTCTAGGCGTAGCCCTCGTAGACATCGG	CGGTTTTTCTGCTTC
Npun.chrom	2321555F	I	GATTGAGAGATGGGTTAGCGTAGGCGTAGCCCGCCACAGGCATCGG	CAACCCCTTACACTT
Npun.chrom	2695530B	I	GCTACATATTTTCTGTGCGTAGGCGTAGCCCGCCATAGGCATCGG	TGTGTAATCTGGTGC
Npun.chrom	2719690B	C	ACTGAAGTTACTTTTTCGCGTAGGCGTAGCCCGCCGAAGGCATCGG	TGTTTTTATCCGAC
Npun.chrom	4984982B	D	CTTGAGACAACAATTTAGCGTAGGCGTAGCCCGCCGACGGTATCGG	ATGTCCTACGTCCGC
Npun.chrom	477016F	I	AACCACAAAGCATTGTTGCGTAGGCGTAGCCCGCCGAGGCATCGG	TATTTTGAGCGTTGAT
Npun.chrom	1087930F	C	AGACACAACATAAAATAGCGTAGGCGTAGCCCGTCATAGACATCGG	TCATCATTTATTTAAC
Npun.chrom	7782628F	P	TGGGATAGTTTAGCAGTCGCGTAGGCGTAGCCCGTCGTAGGCATCGG	ACTTGATGATTTTAGA
Npun.chrom	624194F	I	ACTGATCTTCGGTTAGTCGCGTAGGCGTAGCCCGTTGTAAACATCGG	AGGTTTCAATTGCAAA
Npun.chrom	7847873F	D	TAGGTAATGTGGTGAGCGGTAGGCGTAGCCGTAGCCTGTCGTAGACATCGG	TAAACGAAAACAGT
Npun.chrom	4640708F	P	ATAAATTTGTCTGATCTGATAGGCGTAGCCTGTCGTAGATATCT	TGGGTTAACAGGGATC
Npun.chrom	2275295B	P	GTTGATCTAGACAGAATCGCGTAGGCGTAGCCTGTTGCAGACATCA	ATTTAAAAATATACAA
Npun.chrom	7460228F	D	TGATTACAAAGTTTGTGCGCGTAGGCGTAGCCTTCCGACGGCATCA	TATTGGTCAATTCTCA
Npun.chrom	4733727B	D	ATTACAGTAAAAATAGAGCGTAGGCGTAGCTCGTCATAGATATTG	CTAGCCCTTTTGAGAT
Npun.chrom	986018B	I	AGTCTAACAACTGAAGTCGCGTAGGCGTAGCTCGTCGAGACATCGG	TGGTAAATTCCTCAAT
Npun.chrom	7026793B	P	TAAATACAAAATTTGCTCGCGTAGGCGTAGCTCGTCGTAATATTG	CACTTAAATACCCATAA
Npun.chrom	3376980F	P	GCCTCGAATTAGAAGAACGCGTAGGCGTAGCTCGTCGTGGACATCGG	TCTATAGCAAAATACCA
Npun.chrom	6543130B	D	GAAATCCCTTAAAGAATCGCGTAGGCGTAGTCCACCACGGTATCGG	CATCTTGAACCTTTGTA
Npun.chrom	7238622F	D	CTTGCTTGAGCGATGGTCGCGTAGGCGTAGTCCATCGTAGACATCGG	CTACTCAAACCACTGC
Npun.chrom	1504366F	C	GTAACACAGATGCGAATGTGTAAGGCGTAGTCCGCCGACGGCATCG	TTTTTGGCATCGACCC
Npun.chrom	567522B	P	CGATTCTGACACAGTGTGCGTAGGCGTAGTCCGTGTCGTAGACATCGG	CAGAAAGCATCTGCGG
Npun.chrom	4158263F	D	GACACAACGCCAGGGGCGATAGGCGTAGTCTGTTGTAGACATCGG	GTCTTGGAATAGCCTT
Npun.chrom	3763186F	I	GGTATATTTTGAAGTCTGCGTAGGCGTAGTGTGTCGTAGACATCGG	TTGCTTAATGGAATTT
Npun.chrom	2016104B	I	CTTGTTTTAGCTTCAGAGCGTAGGCTTAGACCGCCGTAGGCATCA	TAGTTGAAGAACCGAC
Npun.chrom	4853634B	P	GCAAGAGAACCAGAGGCGTGTAGGTCAGCCACCCGTAGGCATCGG	TCTCCAGATAATTTAC
Npun.chrom	870354B	C	AGGACATAAAAAAGCCTCGCGTAGGTCAGCCCATCGTAAACATTG	ACCACCAATTAGATAG
Npun.chrom	1932786F	P	AGCTGATTTGACATGTTGCGTAGGTCAGTGTAGCCCGCCGTAGGCATCGG	GGTTTTAGCAATACAT
Npun.chrom	6367465F	D	GGTACTCAGCATTTCTTGATAGGTCAGTCCATCGTGGACATCGG	TTTACCAAAGATATTG
Npun.chrom	7953191F	P	GTCTGAAACGCCAATTGCATAGGTCAGTCCGTGTCGTAGACATCGG	TCTTTAATTATCCAAG
Npun.chrom	1775336F	P	TCTACAAACAAATTTCTGTATAGGTCAGTCCCGTCGTAGACATCGG	GCTATAGTAAAGTAGT
Npun.chrom	5929773B	P	CTAATTCCTCAAAAATCGCGTAGTCTAGCCCGTCGTAGGCAGCT	CTTTAGGTTAGCCTACAT
Npun.chrom	1066992F	I	GTGAACATCTGCTGCTGTCTGCGTAGCCCGTCGTAGACATCA	TTGCTTTGCCAAAGAA
Npun.chrom	4655669B	D	GCGGTTATATCTCGCGCAAGGTAGGCAAGGCTCATCGTAGACATG	TTTTTTCGGGAAGAGTT
Npun.chrom	1153923B	C	AAAGTTGCTGCAATTTTTCGCTTAGGCGAAGCTGCCGAAAGGCATCGG	AGTTTCACGAATAGTC

Npun.chrom	5000056F	I	TGACGTTCTGAGTAGT	GCGTTAGCGGAGCTCGCCGGAGGCATCGG	TCAGATGCCATCGACA
Npun.chrom	3740796F	I	ATATAAGCTACCAAACG	GCGTTGGCAAAGCCCAACCGCAGGCATC	ATCGCTTATATCCTCTCT
Npun.chrom	826999B	I	ATATCGATTTGATGAAT	GCGTTGGCAAAGCCCGCCGTAGGCATCGG	TAAAGTAGCAGGTTTT
Npun.chrom	7002505B	P	TCAGTTAACAGGAAGAT	GCGTTGGCATAGCCCGCCGCAAGGCATCGG	AACTCACTTTACAGTA
Npun.chrom	3695259F	I	TGTCCCGGAATCATTGCG	GCGTTGGCATAGCCCGCCGTAGGCATCGG	AAACTAATAGCTTTAG
Npun.chrom	1362192B	I	CAGCTAAAATTGGAAGT	GCGTTGGCATGCCCCGCCGACAGCATCGG	GCTAGTTGTGGTAGTG
Npun.chrom	2592172F	I	CTTCATTACTTGGTTGT	GCGTTGGCGAAGCCCAACCGCAGGTATCGG	TGCATCACACGTCGC
Npun.chrom	696806B	I	TACCTCTACAAATTGGG	GCGTTGGCGAAGCCCGCCGTAGGCATCGG	TCCTCAAACCTGGGA
Npun.pNpC	73238F	I	TTAGTTGGGCTGTCGAA	GCGTTGGCGAAGCCCGCCGTAGGCATCGG	TCGCTTGGCGGCTAC
Npun.chrom	5032964B	I	CTCGCTTGGCGAAATTT	GCGTTGGCGCAGCCAGCCGCAAGGCATCGG	TACCTTGGGTAGGAAT
Npun.chrom	1688474B	I	TCTATTAATAAGATT	GCGTTGGCGCAGCCCGCCGTAGGCATCT	GGCTTTCTTGAAACTG
Npun.chrom	6562077B	D	ATGGGTAGATGCCATCT	GCGTTGGCGCAGCCCGTCGTAGGCATCA	CACATCCACTGTTCTT
Npun.chrom	6679849F	D	TGCCGAAGCCAAAAATT	GCGTTGGCGCAGCTCACCGTAGGCATCGG	TATTGGGAATTAATCT
Npun.chrom	1693017B	I	TAGCTGTTTCTGAAAAT	GCGTTGGCGTAGCCCGTCGTAGACATCGG	ACATAAAATTTCAATGA
Npun.chrom	7366997B	I	TGAGTATTGAAGGTTTG	GCGTTGGCGTAGCCCGTCGTGGACATCGG	TGTCGTTATCTGTACC
Npun.chrom	5535746F	D	AGAATGCAAATCTGGTGT	GCGTTGGCGTAGCCCGTTGTAGAAATCGG	TAATTGCGCATACAGA
Npun.chrom	1589455B	I	TCTAAAGAAACCATCGC	GCGTTGGCGTAGCCCGTTGTAGACATCGG	CCCCGAAAAATTCCAA
Npun.chrom	5832957B	P	CAAGGATAATTGCCAGT	GCGTTGGTGCAACCCGCGTAGGCATCGG	TTTTCTGTACGCTAC
Npun.pNpB	13314B	P	AGTATAGGAAGCAAGTA	GCGTTGGTGTAGCCCGCCGTAGGCATCGG	TCACCGGAAAAACCCAC
A7120.chrom	4368387B	D	CTGAATTGTTGATGAAT	GCGTTGGCGTAGCCCGCCGCAAGGCATTGG	AGTGTTTTTTACACAA
A7120.pAlpha	13273F	I	AACTCACGAGGTGTTAAG	TGTTGGCGTAGCCCGCCGCAAGGCATCGG	TTTGAAAAGGATAGTG
A7120.chrom	331264F	I	CAAACAGTTGTGTGTTG	GCGTTGGCGTAGCCCGTCGTAGACATCGG	TTGATAGTCAATATTG
A7120.pAlpha	385742B	C	TGTTATCAGAAATCAACG	GCGTTGGCGTAGCCCGTCGTAGACATCGG	CTAGAAACTAAATTTCT
A7120.chrom	1618401F	I	TACAGTAGAGCAATGCG	GCGTAGGCATAGCCCGTCGTAGACATCGG	TTAAATCCAGCAGTA
A7120.pAlpha	351570B	I	CTGTGGTTGATGGCAGT	GCGTTGGTGAGCTCGTCGTAGACATCAG	TACTTGCATATATTC
A7120.chrom	1092666B	D	TCCAAGTTGCTTTTAGCG	GCGTAGGCATAGCCCGCCTTAGGCATCGG	TTTCATCTCAAATTATG
A7120.pGamma	72538F	D	GGAAAAAGCGTCTTCT	GCGTAGGCATAGCCCGCCACAGGCATCAC	TATCCAAAAAACTTT
A7120.chrom	849183F	I	GCTTCTTCTGCTCGCTT	GCGTAAGCGCAGCTCGTCGTAGACATCGG	TAATTTCTACTATCAC
A7120.chrom	3838065B	I	GAAGCTTCTGCTTGT	GCGTAAGCGCAGCTCGTCGTAGACATCGG	TAATATTAGTCAACAT
A7120.chrom	2541876B	I	AATCCTTCTGCGTGT	GCGTAAGCGAAGCTCGTCGTAGACATCAG	TAATATTGATCAGTGA
A7120.chrom	2566342B	I	GCTACTTCTGCTGTTT	GCGTAAGCGGAGCTCGTCGTAGACATCGG	TAATATCTGCAATCAC
A7120.chrom	1210797F	I	TACAGGATCATATTGGA	GCGTTGGCGCAGCCTGCCGTAGGCATCGG	TCAGTCAAGTCAACAAATA
Avar.chrom	1784600F	D	TAGACTGATTGTAAGAT	GCGTAGGCATAGCCCGTCGTAGACATCGG	TCGGCATAGATCCTAA
Avar.pAvC	85741F	I	CCATTGACTTGAGATCG	GCGTAGGCATAGCCCGTCGTAGATATCGG	CACCTTCTTCGCCAGAA
Avar.pAvC	197984B	I	CGGGTGAAATTGGGGCT	GCGTTGGCGAAGCCCGTCATAGACATCGG	TAAATTATTTGGCGAA
Avar.pAvB	50020F	I	GTTTCGCGTCGGTTTTT	GCGTAGGCATAGCCCGCCGCAAGGCATCGG	CTGATACTGGTCAACT
Avar.chrom	5038884B	C	CTGCTTTTGGGTTGGAA	GCGTAGGCATAGCCCGCCGAAGGCATCGG	CATTCTGATCTTTCT
Avar.chrom	650299B	D	TCCAAGTTGCTTTTAGCG	GCTTAGGCATAGCCCGCCTTAGGCATCGG	TTTCATCTCAAATTATG
Avar.chrom	5070846F	I	TGCCAGAAAAATTTGGAT	GCGTTGGCGAAGCCCGCCGCAAGGCATCGG	CTGTGGTGTGAGGAT
Avar.chrom	966014F	P	CTGATCGGAGTTTCTCT	ATGTTGGCGCAGCCCAACCGCAGGCATCAG	AACTTTGGGATTTCCC
Avar.chrom	2198646B	P	CTGGGCAGAGGTTCTCT	CCGTTGGCGCAGCCCGCCGCAAGGCATCAG	AACTTTGGGATTTCCC
Avar.chrom	5137385F	I	TTTAGTACATATCATAG	GCGTTGGCGTAGCCCGCCGAAGGCATCGG	CTGCATCATGTGATTT
Avar.pAvB	179618B	P	CGGAGCGGAGGTTTCTCT	CCGTTGGCGTAGCCCGCCGCAAGGCATCTG	AACTTTTCAAGACAGA
Avar.chrom	2887004F	D	CTGAGCAGAGGCTTCTCT	CCGTTGGTGAGCCCGCCGCAAGGCATCAG	AACTTTTCAAGGCAGA
nod-003	76230F	I	TCAAGACGTACAGAAAG	GCGATAGCTTCGCTCGCCGTAGGCAACGG	ACCGAAAGGCAATTTG
nod-021	44118F	I	CTGCTGCATTATCGCT	GCGATGGCTACGCCCGCCGCAAGGCATCGG	TACTTTTATTCTTAGA
nod-009	54029F	I	GCTACAGCTATATGAGA	GCGATGGCTACGCCCGCCGGAAGGCATCGG	CAAGAATCTCCTTAAC
nod-017	46498B	D	GGTAGTTGCCACTGGTAG	GATGGCTACGCCCGCCGTAGGCATCGG	ATCAGTCTAAGTGAT
nod-024	15395B	I	TTTTAGGAAATACTTCG	GCGATGGCTTTGCCCGCCGCAAGGCATCGG	ACCATTAATACTACAT
nod-076	2920F	P	TCATCCCTTGATAAATA	GCGTAGGCATAGCCCGCCGAGGTATGGC	CTAAAAAGTGTGGGAA
nod-090	8318B	I	TAGTGAGCTTGACTAGT	CCGTTAGCTTTGCTCGCCGTAGGCATCGG	TGGCTGCTCTCTGGT
nod-102	6963F	I	GCTGCAAAATGTAAAC	GCGTTGCCTTTGCCCGCCGTAGGCATCGG	TACTCGTCAAAACAAA
nod-172	1B	I	CCACCAATTCTGACAGG	GCGTTGGCGCAGCCCGCCGAGGC	
nod-014	26307B	P	TCGAGTAGTGCCTAGT	GCTTAGGCCTTGGCTCGTCGTAGACATCC	TTCACTCAATCCAGCC
nod-039	39980F	I	GATATAAATTATGATCT	GCGTAGGCATAGCCCGTCGAGACATCGG	ATCTAATAATGCAGTC
TeBP1.chrom	2348641F	I	CTCTGAGTTGCTCCGACTAT	TGGCTTGGCCGCTGTGGG	GTGGAAATTAACCGTCTC

Supplemental Figure 5: Sequences and contexts of SDR5 elements. All instances of SDR5 in any genome of a cyanobacterium listed in Figure 5 of the main text are indicated. Conventions are as described in Supplemental Figure 1.