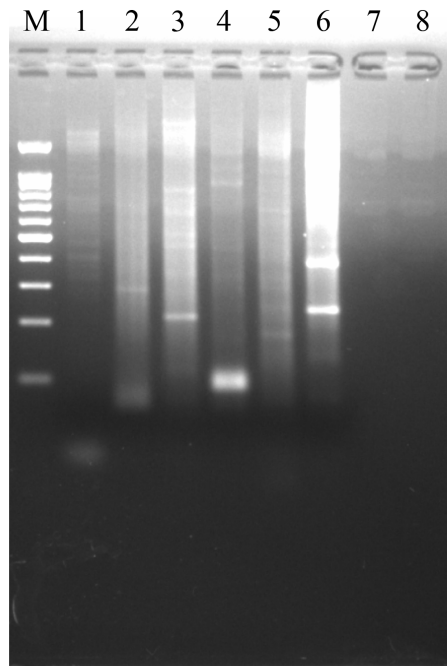


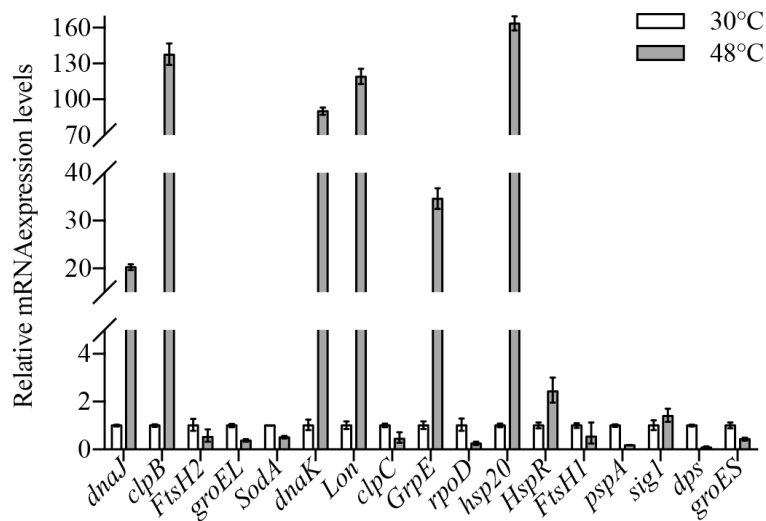
Supplementary Material

1 Supplementary Figures and Tables

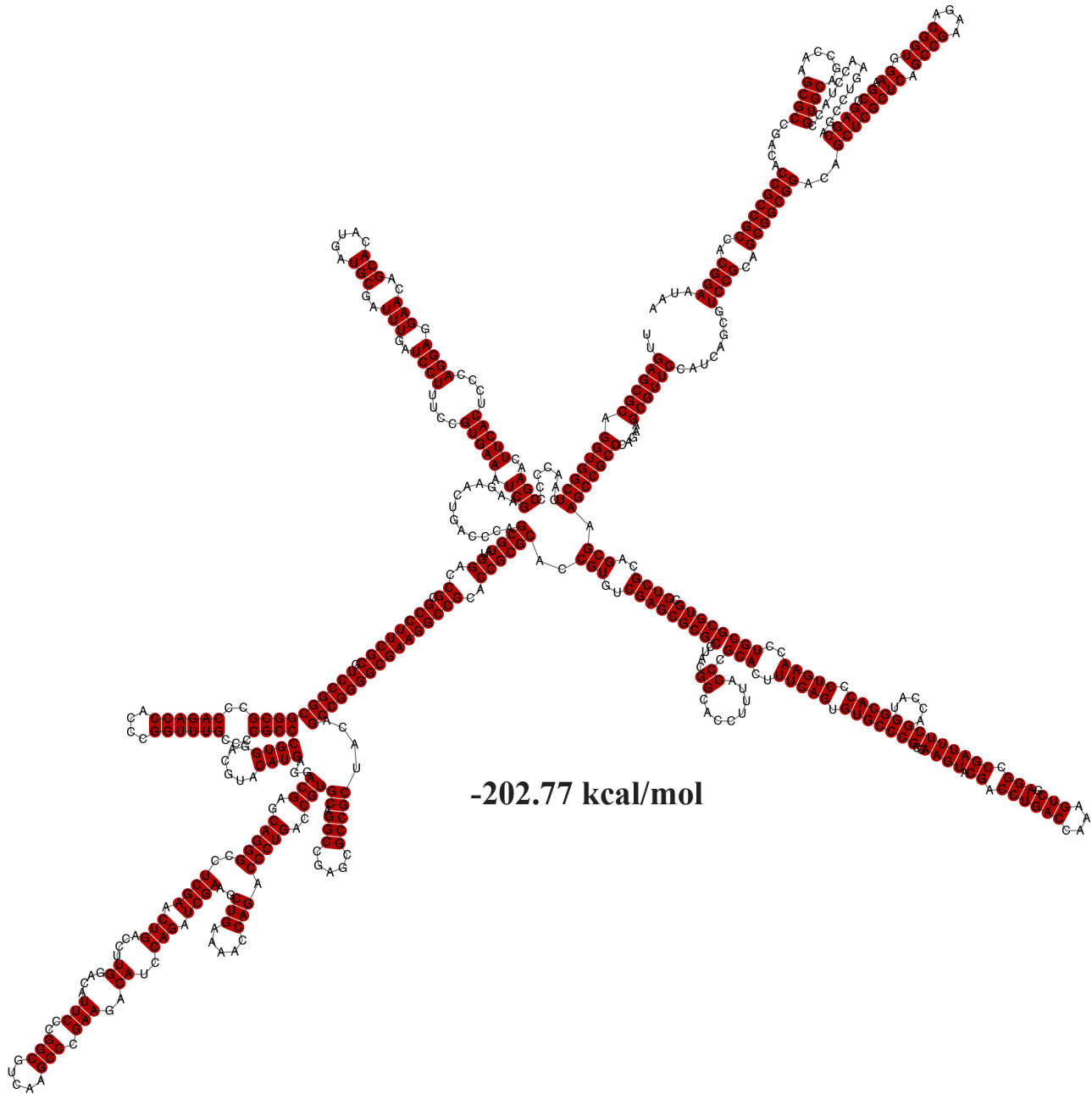
1.1 Supplementary Figures



Supplementary Figure S1. The original gels of 5'-RACE results. PCR results of 5'-RACE. Lane M: 100bp DNA Ladder (Transgen Biotech); Lane 3: 5'-RACE of *DnrH*; Remaining lanes are 5'-RACE results of other ncRNAs those have been done at the same time.



Supplementary Figure S2. Expression of heat regulatory genes in wildtype *D. radiodurans* under heat stress.



Supplementary Figure S3. Secondary structure of *Hsp20* prediction performed with RNAalifold.

1.2 Supplementary Tables

Supplementary table S1 Primers used in this study

Primers	Sequence (5' – 3')	Purpose
GSP1	GCCCATAAACGCATCC	5' RACE
GSP2	TCCGGATTTTTGCCCACTGGCACAGA	
GSP3	TTTGCCCACTGGCACAGAGAAAACG	
16S	F: ATTCCTGGTGTAGCGGTG R: CATCGTTTAGGGTGTGGAC	qRT-PCR
DnrH	F: GCGAGTTGCTTCTGTGCTGTC R: GCCTTGACAAAGACTGAATACC	
dnaJ(DR0126)	F: AGGACTACTACGACGTGCTCG R: TGGCCGTA CTGGTCGTACAG	
clpB(DR1046)	F: GAACCCTGCTCGACAACGAC R: GCGAGCGTGTCCGCCTTCTG	
FtsH-1(DR0583)	F: AGTTGCTCGTCGAGATGGACG R: AGGTCCACCGACACGTCGAGTG	
groEL(DR0607)	F: GAGCTGGAGGACAAGCTG R: GCCACGGCCTTGTCGATGC	
SodA(DR1279)	F: GCTGGGCGTGGCTGGTCGTC R: GCTTCGAGACTTCGTCCCAGTTC	
dnaK(DR0129)	F: GTCAGGCTGCGCTCAAC R: CGTCGCTCACCAGCTTGCGC	
Lon(DR1974)	F: ACGCACCACGCCACCTGGAC R: TCTGCTCGCGCAGGTAGTACTC	
clpC(DR1117)	F: ACCAAGTACCGCGGTGAATTTCG R: TGAGGATGTTGGCTGCGTCG	
ropD(DR0916)	F: TCTCTATCGCCAAGAAGTAC R: TGACGAATCCACCACGTC	
hsp20(DR1114)	F: GGCCTCGAACTGACCTTGGACATTC R: AAAGGTGCCGTAGGCGCGCTCGACA	
HspR(DR0934)	F: TGTCTACGTCATCTCGGTG R: TGCAGGTCGTCGAGCTGGTG	
FtsH-2(DR1020)	F: ATTAAGCTCACCTTCGCGGAC R: ACGAAGTCGGAGCCGGAGATG	
pspA(DR1473)	F: ACCACAAGGACCTCGCCAAG R: TGAAGCCTGACACGCGGTTCG	
sigI(DR0180)	F: GTGCAGGCCGCGGAGAGCGAG R: TGCACGTCCGACACGTCGGCCAG	
dps(DR2263)	F: CAAGAGCGAGGCAGCCAGCAAG R: TGATGGTGGTCGCCAGGTTGCGTTG	
groES(DR0606)	F: GCGACCGCGTTCTGGTTG R: GTA CTGGCGAAGTACACG	
5S-dig	F: ACACCCCCGTGCCATAGCACTGTGGAAC R: AAACCCCCGCGCTGACCGACTTTTCCG	Northern blot
hsp20-dig	F: GGCCTCGAACTGACCTTGGACATTCCCGG R: CACCGTGTGAGCGCGCCTACGGCACCTTT	
DnrH-dig	F: CGCATCCGGATTTTTGCCCACTGGCACAGA R: CGTTTTGGGTTTCGCTCGGATTCCGGCGGAC	

Hsp20-U	F: AGCGTTCAACCTGCGCCTTCTGCGTG R: CAAGGGCCCTCGGTCTCCATGGTAGTCCTATAT TAAACTTGAGTGC	hsp20 mutant construction
Hsp20-M	F: CAAGTTTTAATATAGGACTACCATGGAGACCGA GGGCCCTTGACATTG R: GGTAAAGATGGGTTTACGGGTTATTTGCCGACT ACCTTGGTGATCTCG	
Hsp20-D	F: CACCAAGGTAGTCGGCAAATAACCCGTAAACCC ATCTTTACCTTTTC R: AGGTCGATGGCGCCGTCGGCGTTCAC	
Hsp20-C	F: ACACTGGCGGCCGTTACTAGTCTGCTCGGGTTCG CGCGGCTGG R: TGCCTGCAGGTCGAATCGGATCCTTATTCCGTG GCGGCGGTGTC	hsp20 complementary strain construct
DnrH-mut-com-1	F: CCGAATTCCAGCACACTGGCGGCCGTTACTAGT TACATCGACTACGAAGCC R: AATGGGTAAAGCAATATCGGCGGGAAGCGCGA CGGTGATAGAAAAAGAATACCG	DnrH site- directed mutagenesis
DnrH-mut-com-2	F: GCGCTTCCCGCCGATATTGCTTTACCCATTCGCT CGGATTCGGCGGACAGCACAG R: GCTTGCATGCCTGCAGGTCGAATCGGATCCCCC GCGCTCGACCTGAGCGGCAGC	
Z3	F: CTCGCGAGGCCTCGAGATCT R: TTGGGTTCTCAGTTTGCTGA	Complementary strain checking
DnrH-U	F: CCACTGAGCCTCAGCGAGGCCGACGCTTTC R: GCAGTTTCATTTGATGCTCGATGAGTTTTTCTAA GCCCCCTTGCGGACGGTGAT	DnrH mutant construction
DnrH-M	F: CACTATTCTTTCCTTATCACCGTCCGCAAGGGGG GCTTAGAAAACTCATCGAGCATC R: GATAAAGAAAGAATAGTGCGGTATACGCGCGTT GTCAACATGGAGACCGAGGGCCCTTG	
DnrH-D	F: GAATCATTCTCAATGTCAAGGGCCCTCGGTCTC CATGTTGACAACGCGCGTATACCGC R: GCTGCTGCGTCAGCTCGCCGAGTGGCAC	

DnrH-C	F: CCGAATCCAGCACACTGGCGGCCGTTACTAGT TACATCGACTACGAAGCC	DnrH complementary strain construct
	R: GCATGCCTGCAGGTCGAATCGGATCCCCGCGC TCGACCTGAGCGG	

Supplementary table S2 Synthesized ssRNA oligonucleotide derivatives for MST

Name	Sequence (5' – 3')	Relevant characteristics
<i>DnrH-wt</i> (5'FAM)	CGCGAAGGGCGGCUUUUUCGUUUUGGGUUU	WT, interaction with <i>Hsp20-wt</i>
<i>DnrH-mut</i> (5'FAM)	GCGCUUCCCGCCGAUAUUGCUUUACCCAUU	Dismatch mutation, no interaction with <i>Hsp20-wt</i>
<i>Hsp20-wt</i>	CUGACCCAGCGUAUGGACCGCGCCUUCGCG	WT, interaction with <i>DnrH-wt</i>