

Global Expressions Landscape of NAC Transcription Factor Family and Their Responses to Abiotic Stresses in *Citrullus lanatus*

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Figure S5. Phosphorylation site predictions in 80 CINACs.

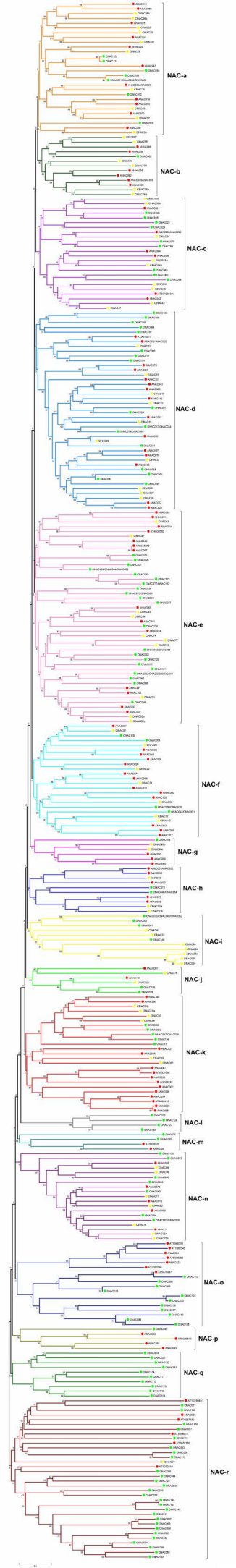
Table S1. Sequence logos for the conserved motifs of watermelon NAC domain proteins.

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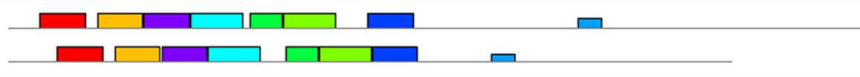
Table S6. Primer sequences of *CINAC* genes for RT-PCR and qRT-PCR analyses.



CINAC02a
CINAC02b



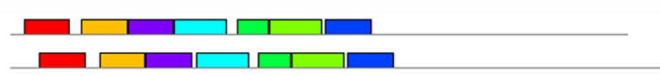
CINAC09a
CINAC09b



CINAC16
CINAC17



CINAC36a
CINAC36b



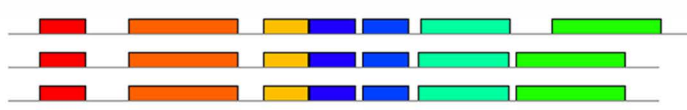
CINAC40a
CINAC40b



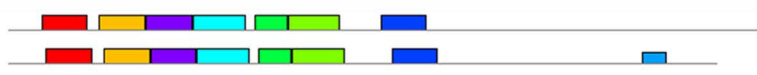
CINAC53a
CINAC53b



CINAC55a
CINAC55b
CINAC55c



CINAC56a
CINAC56b



CINAC59a
CINAC60b



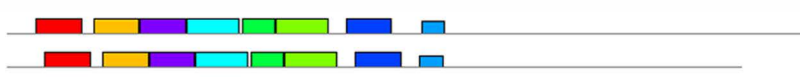
CINAC61a
CINAC61b

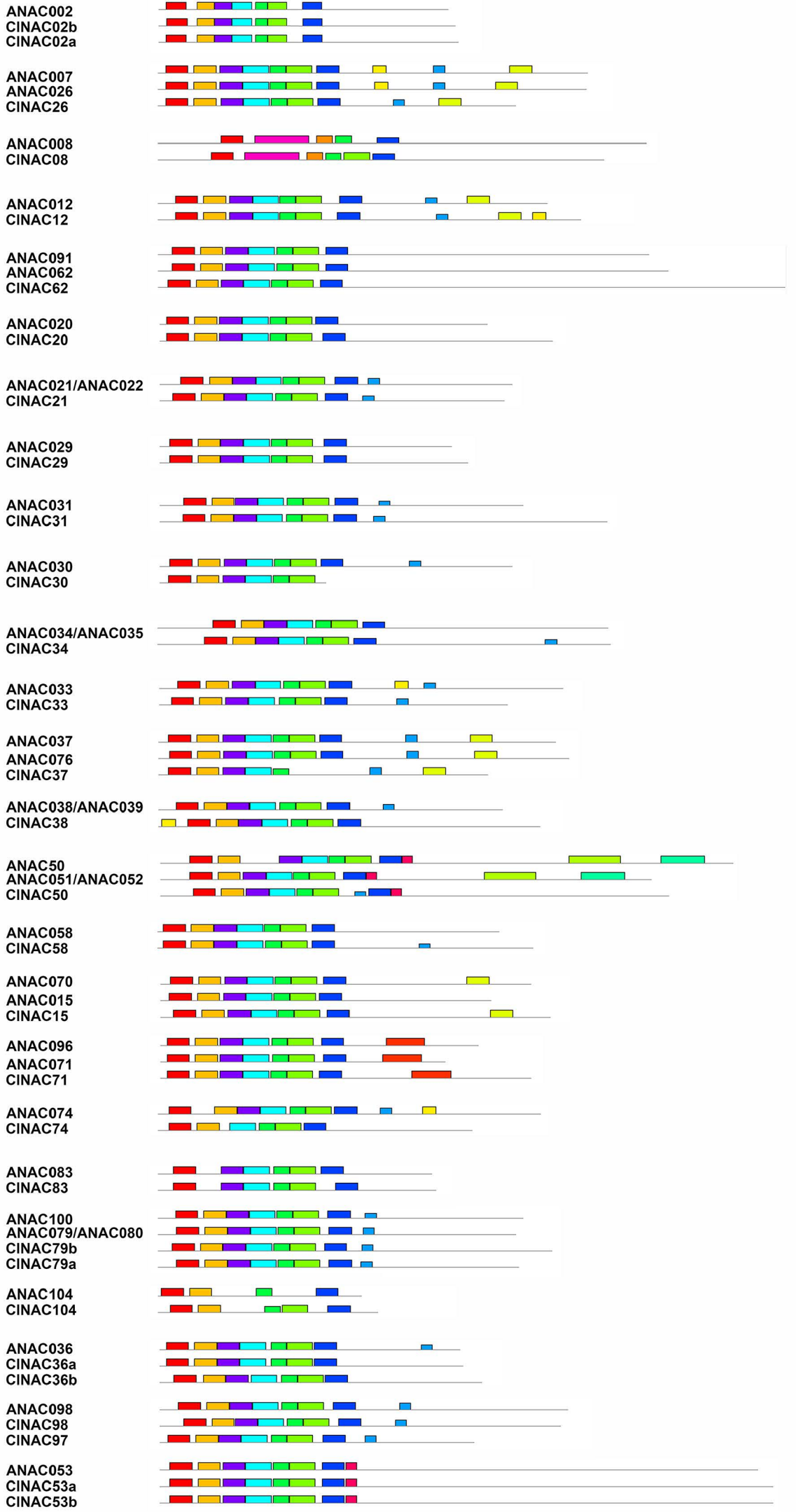


CINAC75a
CINAC75b



CINAC79b
CINAC79a







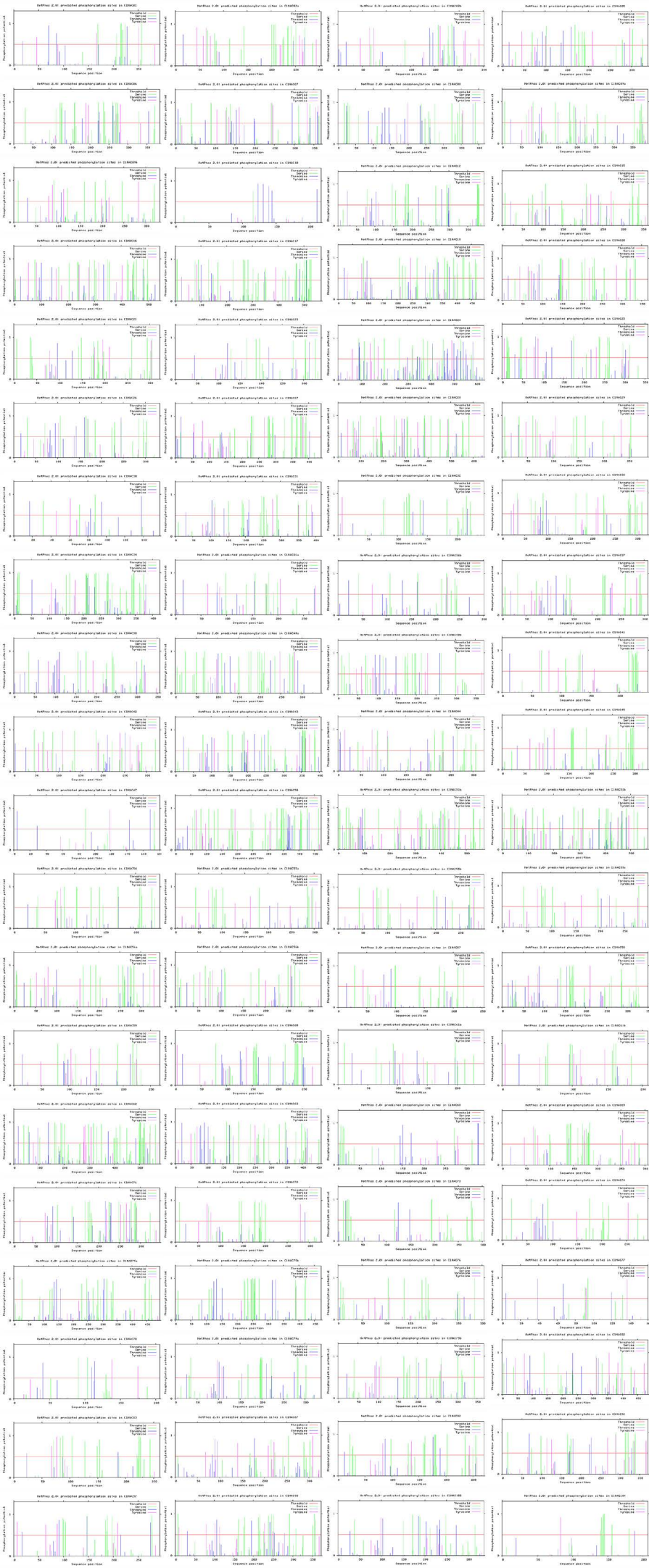


Table S1. Sequence logos for the conserved motifs of watermelon NAC domain proteins.

Motif	E-value	Sites	Width	Logo
Motif 1	4.2e-906	80	22	
Motif 2	1.9e-1031	77	20	
Motif 3	7.1e-876	60	21	
Motif 4	3.3e-619	65	21	
Motif 5	2.5e-482	74	15	
Motif 6	3.2e-403	62	15	
Motif 7	7.4e-368	71	21	
Motif 8	7.90E-110	7	34	
Motif 9	2.40E-82	4	50	
Motif 10	2.40E-49	3	50	
Motif 11	6.10E-49	7	21	
Motif 12	1.00E-43	3	50	
Motif 13	6.90E-42	4	29	
Motif 14	2.20E-38	7	15	
Motif 15	1.90E-26	5	15	
Motif 16	2.20E-24	47	6	
Motif 17	1.10E-20	7	16	
Motif 18	2.90E-20	5	14	
Motif 19	2.20E-13	47	8	
Motif 20	1.80E-08	5	8	

Table S3. Number of different cis-elements presented in the promoter regions of the CINAC genes.

Gene name	MBS	LTR	ABRE	TCA-element	HSE	ERE	ARE	TGACG-motif	CGTCA-motif
CINAC01	1		1		1	1		1	1
CINAC02a	1		4		1		1	4	4
CINAC02b	1		7	1	2	1	3	1	1
CINAC05	1		2	2	1	1			
CINAC06	1						2		
CINAC07	1		2	2	1	1			
CINAC08					1		3	1	1
CINAC09a			1	1	1	2			
CINAC09b					1				
CINAC10				1			1	1	1
CINAC12				3		1	1		
CINAC15			3		1		2	1	1
CINAC16		1				2		1	1
CINAC17	1					1	2		
CINAC18		1				1			
CINAC20				4	1		3	3	3
CINAC21	1		1	2				1	1
CINAC23			1		1		1		
CINAC24					1	1	1	2	2
CINAC25			1	2		3	3		
CINAC26	1				2	1	5		
CINAC27	1		2				3		
CINAC28		1		3					
CINAC29				2	3	1	2		
CINAC30	1	1	1	1	1		2		
CINAC31		1	1	2			2		
CINAC32			1	1		2		1	1
CINAC33				1	1		1		
CINAC34				4	1			1	1
CINAC36a	2	1			1	2	1		
CINAC36b	1			1		1	1		
CINAC37	2		2		1		1	1	
CINAC38		1			1	1	1		
CINAC40a			1				1	1	1
CINAC40b	2		2		1		1	1	1
CINAC41	1			1			1	2	2
CINAC42				1	2		2		
CINAC43		1		5			1	1	1
CINAC44		1		1	2			1	1
CINAC45				1	1		2		
CINAC47	2		1		1	1		1	1
CINAC50	1					1	1		
CINAC53a			2					2	2
CINAC53b			1				2	4	4
CINAC54					2				
CINAC55a							1		
CINAC55b		1		1	2		1	1	1
CINAC55c		1	1	1		1	1	2	2
CINAC56a			3		1	1		2	
CINAC56b	3		1		2			1	1
CINAC57				1					
CINAC58				1	1				
CINAC59					1		2		
CINAC60				1			1		
CINAC61a	1			1			1	1	
CINAC61b				1	1				
CINAC62				4	1		3	3	3
CINAC63				1			2	1	1
CINAC68		1		1	1		1	1	
CINAC69			8				2	2	
CINAC71					2	1	1		
CINAC72			3		1		3	2	2
CINAC73	1			1	2		3		
CINAC74	1		1	1			1	2	2
CINAC75a	1		2	3	1		1		
CINAC75b	1			1			3		
CINAC76		1	5	1	4			1	1
CINAC77	1	2		1		1	1		
CINAC78					2	1			
CINAC79a	1		2	1				1	1
CINAC79b				2	1		1	1	1
CINAC82	3			2					
CINAC83				1				1	1
CINAC87		1		1	1	2			
CINAC92	1			1	2		2	2	
CINAC96	2		1	1				3	3
CINAC97			1	1	2				
CINAC98					1		1	1	1
CINAC99					2			1	1
CINAC100							1	2	2
CINAC104				2			1	2	2

Table S4. Subcellular localization predictions for CINACs

Protein name	Nucl	Cyto	Mito	Chlo	Vacu	Extr	Golg	Cysk	Plas	Pero
CINAC01	5	5	2						2	
CINAC02	4	6		1						2
CINAC03	3									
CINAC04	3	2	4	3	1					
CINAC05	3	1		2						7
CINAC06	4	3								6
CINAC07	1	2	1	7		2				
CINAC08	4	6							2.5	
CINAC09	13									
CINAC10	8	4		1						
CINAC11	10	1							2	
CINAC12	9	2		1	1					
CINAC13	11	1			1					
CINAC14	8		1	2			2			
CINAC15	7	1		1	2					
CINAC16	4	2		5					2	
CINAC17	12			1						
CINAC18	14									
CINAC19	13									
CINAC20	3		1		1		1.5		6.5	
CINAC21	14									
CINAC22	12.5									
CINAC23		2	4	1		2		1		
CINAC24	13									
CINAC25	3	4						7		
CINAC26	9	2		1		1				
CINAC27	10	1		1		1				
CINAC28	11			2						
CINAC29	7	5						2		
CINAC30	12	1								
CINAC31	13									
CINAC32	6	3	2							2
CINAC33	9	1		1					1.5	
CINAC34	6	5	1	1						
CINAC35	7	4		1		1				
CINAC36	10	3								
CINAC37	7	4							2	
CINAC38	14									
CINAC39	8.5			2					1.5	
CINAC40	3	1		8					1	
CINAC41			2	5	3	1			1	
CINAC42	6	4	1	2						
CINAC43	7	5		1						
CINAC44	2	10		2						
CINAC45	13									
CINAC46	14									
CINAC47	3	3		3	1		2		1	
CINAC48	12		1							
CINAC49	12			1						
CINAC50	3	1	1	3		1		1	3	
CINAC51	11	1		1						
CINAC52	13									
CINAC53	13									
CINAC54	12		1							
CINAC55	13									
CINAC56	12								1	
CINAC57	9	2		2						
CINAC58		13								
CINAC59	1	11	1							
CINAC60		2		9						2
CINAC61	5	4	1		1				2	
CINAC62	14									
CINAC63	12		2							
CINAC64	4	1		8						
CINAC65	8	3	1	1						
CINAC66	12			2						
CINAC67	10	1	2							
CINAC68	7	4						2		
CINAC69	13									
CINAC70	5	4	2	2						
CINAC71	9			1	1	1			1	
CINAC72	9			2		2				
CINAC73	5	2		1		4				
CINAC74	13									
CINAC75	8	1	2	2						
CINAC76	6	3	1	1						2
CINAC77	11			1		1				
CINAC78	10	1		2						
CINAC79	6	1	4.5	1						
CINAC80	3	6	2	2						

Nucl: nucleus; Cyto: cytoplasm; Mito: mitochondria; Chlo: chloroplast; Plas: plasma membrane; extr: extracellular; Pero: peroxisome; Vacu: vacuole; Cysk: cytoskeleton; Golg: golgiosome.

Table S5. Phosphorylation site predictions in 80 CINACs.

Protein name	Ser	Thr	Tyr
CINAC01	8	4	3
CINAC02	6	4	7
CINAC03	18	3	8
CINAC04	10	9	9
CINAC05	11	7	4
CINAC06	14	7	2
CINAC07	17	6	5
CINAC08	16	9	2
CINAC09	16	5	4
CINAC10	9	3	6
CINAC11	1	5	0
CINAC12	16	6	1
CINAC13	22	6	8
CINAC14	29	7	2
CINAC15	21	9	3
CINAC16	30	6	6
CINAC17	19	4	8
CINAC18	15	2	5
CINAC19	16	7	5
CINAC20	22	6	9
CINAC21	23	8	4
CINAC22	10	2	6
CINAC23	3	4	2
CINAC24	16	17	5
CINAC25	7	4	0
CINAC26	14	6	4
CINAC27	14	4	4
CINAC28	27	6	2
CINAC29	8	6	5
CINAC30	8	4	2
CINAC31	12	6	4
CINAC32	9	7	4
CINAC33	15	6	6
CINAC34	20	5	3
CINAC35	11	4	8
CINAC36	12	7	5
CINAC37	20	2	5
CINAC38	2	4	1
CINAC39	20	8	4
CINAC40	26	7	4
CINAC41	30	6	8
CINAC42	9	2	6
CINAC43	10	3	4
CINAC44	8	2	4
CINAC45	15	4	5
CINAC46	14	3	5
CINAC47	27	9	7
CINAC48	10	3	1
CINAC49	13	5	3
CINAC50	19	11	3
CINAC51	13	3	3
CINAC52	17	8	5
CINAC53	10	1	3
CINAC54	20	1	6
CINAC55	12	3	1
CINAC56	7	5	2
CINAC57	10	2	2
CINAC58	3	4	2
CINAC59	3	3	2
CINAC60	7	3	2
CINAC61	16	6	0
CINAC62	19	5	1
CINAC63	15	2	2
CINAC64	12	3	1
CINAC65	13	2	4
CINAC66	16	2	2
CINAC67	8	4	5
CINAC68	8	5	4
CINAC69	15	9	3
CINAC70	8	6	2
CINAC71	8	2	5
CINAC72	17	4	3
CINAC73	12	6	6
CINAC74	16	6	6
CINAC75	11	5	4
CINAC76	7	8	1
CINAC77	14	7	2
CINAC78	15	3	3
CINAC79	9	6	7
CINAC80	7	1	1

Table S6. Primer sequences of CINAC genes for RT-PCR and qRT-PCR analyses.

Gene symbol	Primer	
	F	R
<i>CINAC01</i>	AGAATGCACACCGACTCCTC	TTGGGTTGACTTTGGACCTC
<i>CINAC02a</i>	AAGGGCGTAATCGAGAAACA	GAAACTGCCCTTTCGTTACG
<i>CINAC02b</i>	CAATACCGCGATTACACACG	TTCCAATTCCTTCCATTTTCG
<i>CINAC05</i>	AAATGCCACTCCACAGGAAG	GTTCCTCGTACCAACACGGT
<i>CINAC06</i>	GAATCCTCCGATTCCACCTC	TGCAATGACTGAGGCAGAC
<i>CINAC07</i>	CTTTGCAAGCATGAGGTTGA	CATAGGTGCACGACAAGACG
<i>CINAC08</i>	TTGATCCTGCAAAACATCGAA	CCGAAATCAAGCTGGCTAAG
<i>CINAC09a</i>	TGGATGATGCATGAATTTTCG	TCTTTGAGCTGTGGAGTTGG
<i>CINAC09b</i>	CGTGGACAGGAGAGAAGGAG	TGGGACGATCAGTTCAGTA
<i>CINAC10</i>	CAAAGATTCATCCACTCATCCA	TGTCGGATTTCACCATCTTTC
<i>CINAC12</i>	GACGAAAGAGCCATGGAAGA	CTCATGCCATATCCCAATC
<i>CINAC15</i>	ATGTTGGATCGGCTCGTTAC	TCACTGATGACGACCCATGT
<i>CINAC16</i>	AATGATGGAGGTGGTTCTGC	GATGCAGGAGTGGTCGGTAT
<i>CINAC17</i>	ACTCCTTATCCCTGGGTGCT	GCTGCTGCTCGGAATTAGAC
<i>CINAC18</i>	CAACTGGGAGGAGCTCTTTG	CCAGCTTAAACCCGTATCCA
<i>CINAC20</i>	TTACATTGATTGCCCTTCA	CGAGCTCTAATGGCGGATAG
<i>CINAC21</i>	AGTACGCGACTGGCTTAGA	ACGAGCTGATTGGCCTTAGT
<i>CINAC23</i>	GCCTCGAAAGCTTCATCATC	ATAGTTCGTGTCGGTCGCTT
<i>CINAC24</i>	GCCTGAGATGAAGCAGGGTA	CGCCATAACACATCATCAG
<i>CINAC25</i>	CCACCGACGAGGAATTAGTG	GTCCCATGGATCGAATTGT
<i>CINAC26</i>	GAGCTCGATTCTCCAACCAC	AGTGCAACTCGAGCTCTTGC
<i>CINAC27</i>	ATTAACCAGGACAGGGCACA	CTTGATGCACCACCTCCTTC
<i>CINAC28</i>	TTTGATGTGGAAGCTCGTG	TTCCATGCAATCTTGTGGA
<i>CINAC29</i>	GGCTTCAGATTTCAACCAAC	TTATGGAACAGGACATGGCT
<i>CINAC30</i>	AAATTTGGTTACGAGGAGCAAA	ACTGCCATTATCCCTCCCTGT
<i>CINAC31</i>	GAGACCGGAAATACCCAACA	GGGATCCATTTGAAGCACTG
<i>CINAC32</i>	TAAGCCAAGGGATCAACCAG	TGAGTTGGGAGTTGTTGCAG
<i>CINAC33</i>	CGCAGCTGTTTAGTCCAGAG	CCGCAACTTAACCTCCAGAT
<i>CINAC34</i>	GCTTCCATCCCACTGAAGAA	AAGCTCCCAAGGGTCATAGC
<i>CINAC36a</i>	AAGAGGCTGCAGTTTATCC	CTCTCCAATCCTTGCCAATC
<i>CINAC36b</i>	GGCGAAGAATGGTGAGAGAG	CTTCCAGTACCCAATTCGG
<i>CINAC37</i>	AGCAAGAGATGGAACAAGCTG	TCTTCATTGCACTCGGACAC
<i>CINAC38</i>	TTGGAATGAAGAAGACGTTGG	CACCCATTGCTCCTTAGCTG
<i>CINAC40a</i>	AAGGCGGCTTCGAGTAAAGT	AATTTGCTCCAGCGAATGAG
<i>CINAC40b</i>	TGCTTCGGATCCTTTACCAC	GCAGAACCTTGGTTCCGGTAG
<i>CINAC41</i>	CTGCCTTGCCTGCTTCTATC	CCTGGCCTGTAGGAATATC
<i>CINAC42</i>	CGTCTCCCTCCTCTAATCC	TCTGCTTCTGGGCAAAGTT
<i>CINAC43</i>	AAGTACCGACTGGAACCTCG	CAAGCGTCTTCTCATTCCA
<i>CINAC44</i>	TCATTGCATTGGCTAAAGA	GGCGAAGTGAAGTGGAAAC
<i>CINAC45</i>	ACAGTGTGAGGCCAACAGAG	GCCTTTACCAGCAGATCCAC
<i>CINAC47</i>	AAAGTGAGCAATGTGGGAGA	TGTAATGCCTGTTGCTTTC
<i>CINAC50</i>	GACCTCCAATGGACATCGT	CCGTCTGCAATCTTCTTCC
<i>CINAC53a</i>	CGCAGATGGTGATAATGCAG	CAGTGTGTTTGTGGCAGAT
<i>CINAC53b</i>	AAACAATCGTCCATGGCTTC	CTGGCACGTTTCAAGAATGA
<i>CINAC54</i>	GGCTCAAGAACTGATTGGGT	CCGTCAATAAGGTGGAAGG
<i>CINAC55a</i>	CGTCAAATTTAGGCCTACCG	GCTCGGTTCCACCATAAAGA
<i>CINAC55b</i>	CGTCAAATTTAGGCCTACCG	GCTCGGTTCCACCATAAAGA
<i>CINAC55c</i>	TGCCATTGAACCATACGTG	GCTCGGTTCCACCATAAAGA
<i>CINAC56a</i>	ATGGAGAGCACCGACTCGT	GAACCACGAGCTTTCATCG
<i>CINAC56b</i>	CTTCCAGCTAAGGCGAGCTA	TTCCAGTGCCTTCCAATAC
<i>CINAC57</i>	GATGGCAGCTTCATCTTCTG	GCTGATGAATTGGAAGCACA
<i>CINAC58</i>	CGATGGGAGAGAAAGATGG	GACCAGTGCCAAAGATTCC
<i>CINAC59</i>	CGGTGCAAGAGAGATGAAGA	CCAGTTGCTTCCAATAGCC
<i>CINAC60</i>	CTCAGTTCGCTGCTGGAAG	GAGCGATTGAGTTGGGTTA
<i>CINAC61a</i>	AACCAAATGGAAGATGAACGA	AAAGCATCCGGAAATCACAT
<i>CINAC61b</i>	GAGCCGTTCAATCTCTCCAG	CCTTCCAATACCCAGATCCA
<i>CINAC62</i>	ATGCAGAGTCCAGGACGAGT	AAGGATTGAAGGTGGCAGTG
<i>CINAC63</i>	GAACCAACAAAGTATCGCA	TCTGGGTGAAGGTGATACTCG
<i>CINAC68</i>	ATCCTGTGGCCATCAGATTG	ATTTCACTCCAGCTGGCAAC
<i>CINAC69</i>	GACGATTTCTTCGCTATCC	GTTCCGGCACTGAGTAGAGC
<i>CINAC71</i>	TCGTCTCAGACCAATTTCTCTG	CGTGCTATACCGAGACATGG
<i>CINAC72</i>	GCAACCACTGAGGAACACG	GGAGTTGGAGAACTTTGCG
<i>CINAC73</i>	AGCCAGAGAAGACAACCTGGA	TGGAGTGAGTTCACACATTG
<i>CINAC74</i>	ACTTCGAGCGTGTCCATCT	TTGTAGTCAACAAGGCATCGC
<i>CINAC75a</i>	AATTGGTTCGGAGAGAGCCT	TCTCCCGTCGACTCAAATTC
<i>CINAC75b</i>	CTCCTCTCCACCATCTCTCA	AAGCAGACCTCCCTCCTAGC
<i>CINAC76</i>	AGGGAGAACAGAGGACGGAT	CTCCTCTCATCCCAAGCAC
<i>CINAC77</i>	TCACACTTTCCGTTTGATGC	CAGCCCATTTGAGTCGTTG
<i>CINAC78</i>	TGGCAAAGCTAAATGGGAAG	TCCAGTTGCTTCCAATATCC
<i>CINAC79a</i>	GCCATTGAAGGATTCCTCTTC	ATCCATGGTGTGGAGAAGC
<i>CINAC79b</i>	ATCGCCATGGATTCTCAAAG	TTGGCGGTGAATACATTGAA
<i>CINAC82</i>	TTTGAAGATGCAGCTCAGA	TCAACCTCCTCCAGACCATC
<i>CINAC83</i>	TTTCTTCAGCACGAGAGAAGC	TCTTCAACCCCAACCATTGA
<i>CINAC87</i>	GGAAGCAACACTTCCATCGT	TTATCGACGTAGTCCCACCAG
<i>CINAC92</i>	AGAGCAACAGTCGCTTCTCAG	GTTGTTGACATCGGTGGTGA
<i>CINAC96</i>	AGTTGGATGGAGTCGGAGTG	TGCTGCTTCCAATGCTACAG
<i>CINAC97</i>	AACCGGTTGAGAACGAAC	TTGGAGCTCTGCCTTTGTAGA
<i>CINAC98</i>	AGAGGAAGAGCACCCAAAGG	CCCTTGAAATCACCCACTCA
<i>CINAC100</i>	TGGAAGACGCAGAATGAGTG	CGATGGCAGTGAATGGTA
<i>CINAC104</i>	CGCCTCTCTCTCTCTCTCT	TCATCCAAACACGACAGCTC