

Table 1 Characteristic features of CCT genes family in wheat

Gene name	Gene ID	Chromosome location	Number of amino acids (aa)	Isoelectric point	Molecular weight (kD)	Subcellular location
<i>TaCCT1-A</i>	TraesCS1A02G220300.1	1A: 389 129 281~389 131 767	291	6.67	30 727	Nu
<i>TaCCT2-A</i>	TraesCS1A02G290900.1	1A: 487 308 021~487 309 305	308	5	34 016	Nu
<i>TaCCT3-A</i>	TraesCS1A02G444200.1	1A: 592 308 531~592 312 286	330	5.7	35 582.8	Nu
<i>TaCCT4-A</i>	TraesCS1A02G444400.1	1A: 592 323 643~592 329 619	327	4.88	35 663	Cp
<i>TaCCT1-B</i>	TraesCS1B02G233600.1	1B: 419 402 125~419 404 772	289	6.91	30 482.8	Nu
<i>TaCCT2-B</i>	TraesCS1B02G300300.1	1B: 520 894 586~520 895 684	309	5	34 266.2	Nu
<i>TaCCT3-B</i>	TraesCS1B02G478700.1	1B: 686 928 123~686 932 384	342	5	37 160.4	Nu
<i>TaCCT33-D</i>	TraesCS1D02G146000.1	1D: 201 590 748~201 593 494	437	4.29	45 975.7	Nu
<i>TaCCT1-D</i>	TraesCS1D02G221800.1	1D: 309 583 934~309 586 332	289	6.91	30 566.9	Nu
<i>TaCCT2-D</i>	TraesCS1D02G289500.1	1D: 387 548 256~387 549 758	307	5.01	33 779.8	Nu
<i>TaCCT3-D</i>	TraesCS1D02G452200.2	1D: 493 924 764~493 929 098	354	5.25	38 298.5	Nu
<i>TaCCT4-D</i>	TraesCS1D02G452600.1	1D: 493 977 486~493 982 326	326	5.42	35 861.1	Nu
<i>TaCCT5-A</i>	TraesCS2A02G119600.1	2A: 70 102 039~70 104 699	382	6	40 010.4	Cp
<i>TaCCT6-A</i>	TraesCS2A02G353900.1	2A: 594 579 959~594 581 671	316	5.75	33 724.1	Cy
<i>TaCCT5-B</i>	TraesCS2B02G140300.1	2B: 106 954 443~106 956 656	387	5.42	40 383.9	Cp
<i>TaCCT6-B</i>	TraesCS2B02G372000.1	2B: 530 306 217~530 307 895	319	5.75	33 908.2	Cy
<i>TaCCT5-D</i>	TraesCS2D02G121400.1	2D: 70 622 968~70 625 567	381	6	39 968.5	Ex
<i>TaCCT6-D</i>	TraesCS2D02G351900.1	2D: 450 234 732~450 236 192	319	5.75	33 936.3	Cy
<i>TaCCT7-A</i>	TraesCS3A02G354000.1	3A: 601 543 028~601 544 676	320	6.99	34 116.7	Nu
<i>TaCCT7-B</i>	TraesCS3B02G386800.1	3B: 607 406 876~607 408 413	316	6.71	33 929.7	Nu
<i>TaCCT7-D</i>	TraesCS3D02G348100.1	3D: 459 478 179~459 479 813	322	6.51	34 425.1	Nu
<i>TaCCT8-A</i>	TraesCS4A02G140600.1	4A: 216 145 053~216 148 012	412	5.59	45 256	Nu
<i>TaCCT9-A</i>	TraesCS4A02G178500.1	4A: 450 793 843~450 794 820	191	5.8	20 920.9	Nu
<i>TaCCT10-A</i>	TraesCS4A02G249400.1	4A: 560 901 278~560 905 179	270	6.88	28 597	Nu
<i>TaCCT11-A</i>	TraesCS4A02G268500.1	4A: 580 733 925~580 736 107	410	6.2	44 828.7	Nu
<i>TaCCT12-A</i>	TraesCS4A02G496000.1	4A: 742 605 536~742 607 160	227	7.3	24 901.4	Nu
<i>TaCCT11-B</i>	TraesCS4B02G045700.1	4B: 32 896 523~32 898 695	411	6.45	44 869.8	Nu
<i>TaCCT10-B</i>	TraesCS4B02G065300.1	4B: 57 865 044~57 868 927	269	6.51	28 710.2	Nu
<i>TaCCT9-B</i>	TraesCS4B02G138700.1	4B: 182 674 457~182 675 345	191	6.26	21 020	Nu
<i>TaCCT11-D</i>	TraesCS4D02G046200.1	4D: 21 774 703~21 776 886	410	6.2	44 815.7	Nu
<i>TaCCT9-D</i>	TraesCS4D02G133400.1	4D: 119 826 290~119 827 173	191	6.79	21 031.1	Nu
<i>TaCCT34-D</i>	TraesCS4D02G336700.1	4D: 494 269 418~494 272 096	388	4.23	41 967.2	Nu
<i>TaCCT16-D</i>	TraesCS4D02G364400.1	4D: 509 282 253~509 284 348	212	9.68	23 974.9	Nu
<i>TaCCT13-A</i>	TraesCS5A02G157400.1	5A: 337 633 106~337 633 958	173	10.71	19 854.1	Nu
<i>TaCCT14-A</i>	TraesCS5A02G157500.1	5A: 337 820 021~337 820 678	194	6.79	21 329.3	Nu
<i>TaCCT15-A</i>	TraesCS5A02G166100.1	5A: 355 071 283~355 072 803	326	6.06	35 576	Nu
<i>TaCCT16-A</i>	TraesCS5A02G541200.1	5A: 698 162 058~698 163 889	212	9.08	23 917	Nu
<i>TaCCT17-A</i>	TraesCS5A02G541300.1	5A: 698 178 472~698 180 716	206	10.44	23 490.7	Nu
<i>TaCCT14-B</i>	TraesCS5B02G156200.1	5B: 288 329 569~288 330 532	195	6.67	21 534.5	Nu
<i>TaCCT13-B</i>	TraesCS5B02G156300.1	5B: 288 440 378~288 441 327	173	10.82	19 969.4	Nu
<i>TaCCT15-B</i>	TraesCS5B02G163500.1	5B: 302 753 429~302 754 975	325	6.32	35 476.9	Nu
<i>TaCCT29-B</i>	TraesCS5B02G335300.1	5B: 518 481 548~518 484 145	368	6.69	39 644.8	Nu
<i>TaCCT13-D</i>	TraesCS5D02G162700.1	5D: 254 428 776~254 429 660	170	10.46	19 475.8	Nu
<i>TaCCT14-D</i>	TraesCS5D02G162800.1	5D: 254 518 879~254 519 840	197	6.93	21 704.7	Nu
<i>TaCCT15-D</i>	TraesCS5D02G170700.1	5D: 267 762 539~267 764 201	325	6.32	35 519	Nu
<i>TaCCT18-A</i>	TraesCS6A02G118000.1	6A: 88 847 254~88 851 191	492	7.17	51 832.5	Nu

Continuing table 1

Gene name	Gene ID	Chromosome location	Number of amino acids (aa)	Isoelectric point	Molecular weight (kD)	Subcellular location
<i>TaCCT19-A</i>	TraesCS6A02G150900.1	6A: 134 947 729~134 949 478	364	5.88	37 982	Nu
<i>TaCCT20-A</i>	TraesCS6A02G218900.1	6A: 405 166 583~405 168 134	321	5.09	33 625	Nu
<i>TaCCT21-A</i>	TraesCS6A02G227900.1	6A: 429 395 155~429 398 129	516	6.51	57 795.1	Nu
<i>TaCCT22-A</i>	TraesCS6A02G289400.1	6A: 521 451 709~521 454 099	369	6.28	41 051.4	Nu
<i>TaCCT30-B</i>	TraesCS6B02G146800.1	6B: 147 677 525~147 681 024	341	5.02	36 173.6	Nu
<i>TaCCT19-B</i>	TraesCS6B02G179000.1	6B: 198 984 566~198 986 312	374	5.13	38 845.7	Cp
<i>TaCCT21-B</i>	TraesCS6B02G253900.1	6B: 457 168 720~457 171 746	516	6.72	57 627	Nu
<i>TaCCT31-B</i>	TraesCS6B02G315400.1	6B: 563 320 471~563 324 616	390	4.74	42 530.9	Nu
<i>TaCCT22-B</i>	TraesCS6B02G319500.1	6B: 567 397 520~567 399 497	370	5.76	41 154.5	Nu
<i>TaCCT32-B</i>	TraesCS6B02G323400.1	6B: 572 391 940~572 393 940	428	6.84	46 596.6	Nu
<i>TaCCT18-D</i>	TraesCS6D02G108000.1	6D: 72 140 196~72 144 318	494	7.5	51 906.6	Nu
<i>TaCCT30-D</i>	TraesCS6D02G108700.1	6D: 73 495 550~73 498 819	341	5.02	36 189.7	Nu
<i>TaCCT19-D</i>	TraesCS6D02G140900.1	6D: 110 442 898~110 444 721	364	5.88	38 019	Cp
<i>TaCCT21-D</i>	TraesCS6D02G207100.1	6D: 292 717 467~292 720 508	520	6.51	57 947.3	Nu
<i>TaCCT31-D</i>	TraesCS6D02G267100.1	6D: 377 220 309~377 224 969	392	4.56	43 027.5	Nu
<i>TaCCT22-D</i>	TraesCS6D02G269500.1	6D: 379 572 086~379 574 125	369	5.58	40 998.3	Nu
<i>TaCCT23-A</i>	TraesCS7A02G211300.1	7A: 174 203 246~174 205 720	385	6.5	42 218.5	Nu
<i>TaCCT24-A</i>	TraesCS7A02G218600.1	7A: 185642724~185 648 145	396	4.69	43 614.8	Nu
<i>TaCCT25-A</i>	TraesCS7A02G263500.1	7A: 261 221 617~261 225 670	490	6.5	52 004.4	Nu
<i>TaCCT26-A</i>	TraesCS7A02G314300.1	7A: 448 191 162~448 193 049	298	10.16	31 683	Nu
<i>TaCCT27-A</i>	TraesCS7A02G422200.1	7A: 612 767 230~612 770 685	458	8.04	47 783.6	Nu
<i>TaCCT28-A</i>	TraesCS7A02G497200.1	7A: 686 936 894~686 938 479	372	6.37	39 566.2	Nu
<i>TaCCT23-B</i>	TraesCS7B02G118300.1	7B: 137 793 769~137 796 142	383	6.69	42 114.5	Nu
<i>TaCCT25-B</i>	TraesCS7B02G161500.1	7B: 220 866 464~220 870 459	488	6.86	51 810.3	Nu
<i>TaCCT26-B</i>	TraesCS7B02G215100.1	7B: 394 763 464~394 767 373	295	10.28	31 435.9	Nu
<i>TaCCT27-B</i>	TraesCS7B02G322600.1	7B: 573 105 551~573 109 876	457	7.74	47 832.4	Nu
<i>TaCCT28-B</i>	TraesCS7B02G400600.1	7B: 667 070 044~667 071 768	372	6.28	39 407.1	Nu
<i>TaCCT35-D</i>	TraesCS7D02G003500.1	7D: 2 036 060~2 038 960	367	6.59	39 531.6	Nu
<i>TaCCT24-D</i>	TraesCS7D02G220300.1	7D: 180 685 905~180 691 434	396	4.69	43 608.8	Nu
<i>TaCCT25-D</i>	TraesCS7D02G264300.1	7D: 244 952 312~244 956 390	489	6.63	51 903.3	Nu
<i>TaCCT26-D</i>	TraesCS7D02G311500.1	7D: 394 940 951~394 943 055	290	10.04	30 682.9	Nu
<i>TaCCT27-D</i>	TraesCS7D02G414400.2	7D: 532 624 278~532 628 144	457	7.75	47 850.6	Nu
<i>TaCCT36-D</i>	TraesCS7D02G416000.1	7D: 535 305 998~535 312 427	389	4.58	41 174.8	Nu
<i>TaCCT28-D</i>	TraesCS7D02G484400.1	7D: 594 729 348~594 730 950	372	6.23	39 527.2	Cp

Note: Nu: Nucleus; Cp: Chloroplast; Cy: Cytoplasm; Ex: Extracellular