```
T-COFFEE, Version_7.38Thu Nov 20 17:26:38 WEST 2008
  Cedric Notredame
  CPU TIME:42 sec.
  SCORE=94
  *
   BAD  AVG  GOOD
  *
  Arabidopsis_tha    :  94
  Cucumis_sativus    :  95
  Hordeum_vulgare    :  93
  Triticum_aestiv    :  93
  Arabidopsis_tha    :  94
  Hordeum_vulgare    :  94
  Arabidopsis_tha    :  94
  Avena_sativa       :  99
  Chlamydomonas_r    :  90
  Daucus_carota      :  94
  Marchantia_pale    :  92
  Pisum_sativum      :  94
  Plectonema_bory    :  99
  Synechocystis_s    :  98
  cons               :  94

  Arabidopsis_tha       1 MALQAA-S--------------------------------------     7
  Cucumis_sativus       1 MALQAA-S--------------------------------------     7
  Hordeum_vulgare       1 MALQ------------------------------------------     4
  Triticum_aestiv       1 MALQ------------------------------------------     4
  Arabidopsis_tha       1 MALQAA-S--------------------------------------     7
  Hordeum_vulgare       1 MALQAATS--------------------------------------     8
  Arabidopsis_tha       1 MALQAAYS--------------------------------------     8
  Avena_sativa          1 ------------------------------------------------     0
  Chlamydomonas_r       1 MALTMSAK--------------------------------------     8
  Daucus_carota         1 MALQAA-S--------------------------------------     7
  Marchantia_pale       1 MPKRSNGSLVVRCAVSVVRFSKENVSCDLASENFTFSRDSFPVVS    45
  Pisum_sativum         1 MALQTA-S--------------------------------------     7
  Plectonema_bory       1 MAQD------------------------------------------     4
  Synechocystis_s       1 MEQP------------------------------------------     4

  cons                  1                                                  45


  Arabidopsis_tha       8 ----------------LVSSAFSVRKDGKL-NAS-ASSSFKESSL    34
  Cucumis_sativus       8 ----------------LVSPALSIPKEGKS-S-----VCLKDSSL    30
  Hordeum_vulgare       5 ----------------LLPSTLSVPKKGSS-M---GAVAVKDTAA    29
  Triticum_aestiv       5 ----------------LLPSTLSVPKKGSS-M---GAAAVKDTAA    29
  Arabidopsis_tha       8 ----------------LVSSAFSVRKDAKL-NAS--SSSFKDSSL    33
  Hordeum_vulgare       9 ----------------FLPSALSARKEGA----------AKDSAF    27
  Arabidopsis_tha       9 ----------------LLPSTISIQKEGKF-N-----ASLKETTF    31
  Avena_sativa          1 ------------------------------------------------     0
  Chlamydomonas_r       9 --------------------SVSARAQV----------SSKAQAA    23
  Daucus_carota         8 ----------------FLPSSFSINKEGKA-N-----VSLKETSL    30
  Marchantia_pale      46 TVLRVSEAVYRMAAVASLGSALSVSSAALSQNVSVSNNATKESAF    90
  Pisum_sativum         8 ----------------MLPASFSIPKEGKI-G-----ASLKDSTL    30
  Plectonema_bory       5 ------------------------------------------------     4
  Synechocystis_s       5 ------------------------------------------------     4

  cons                 46                                                  90
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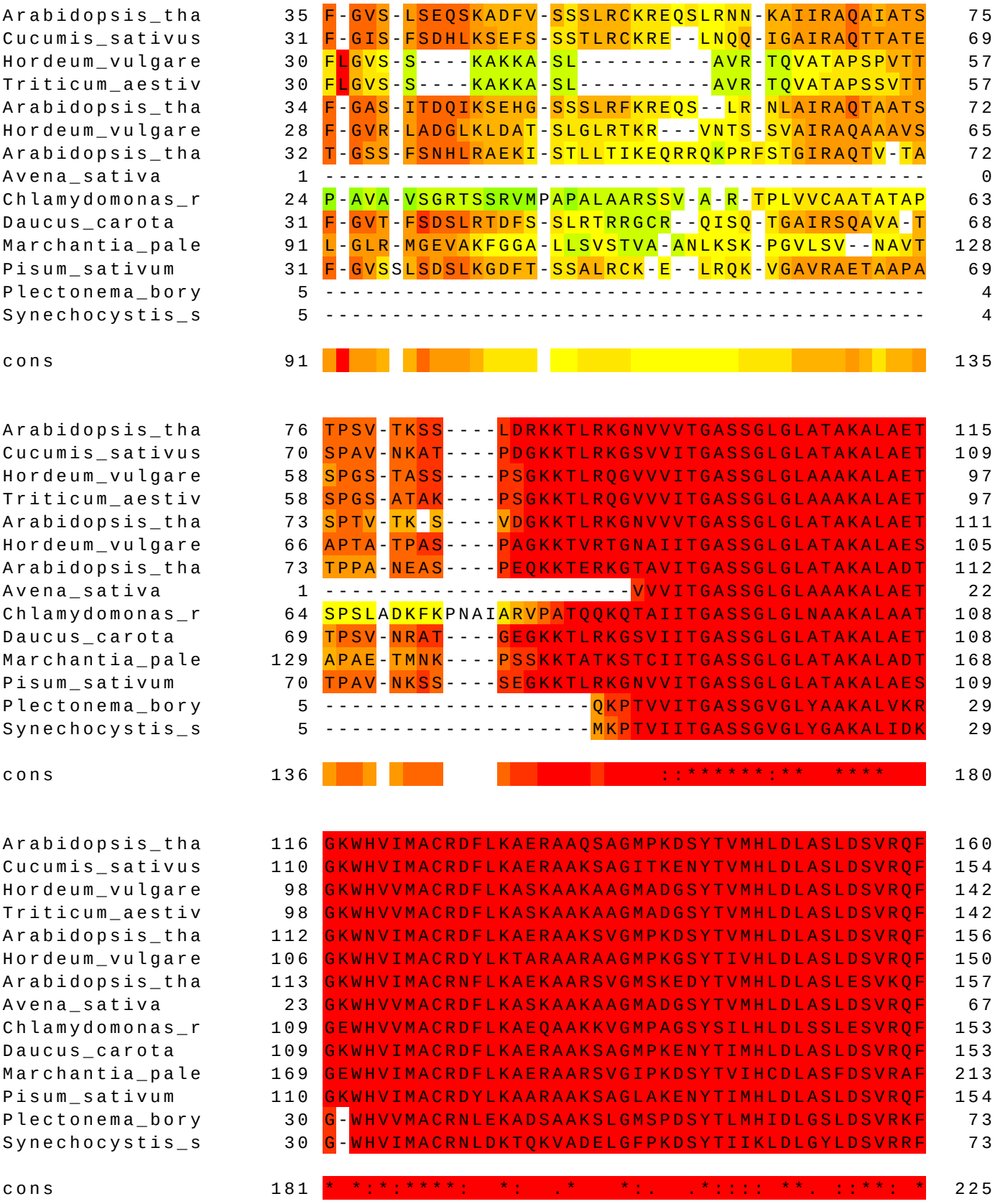
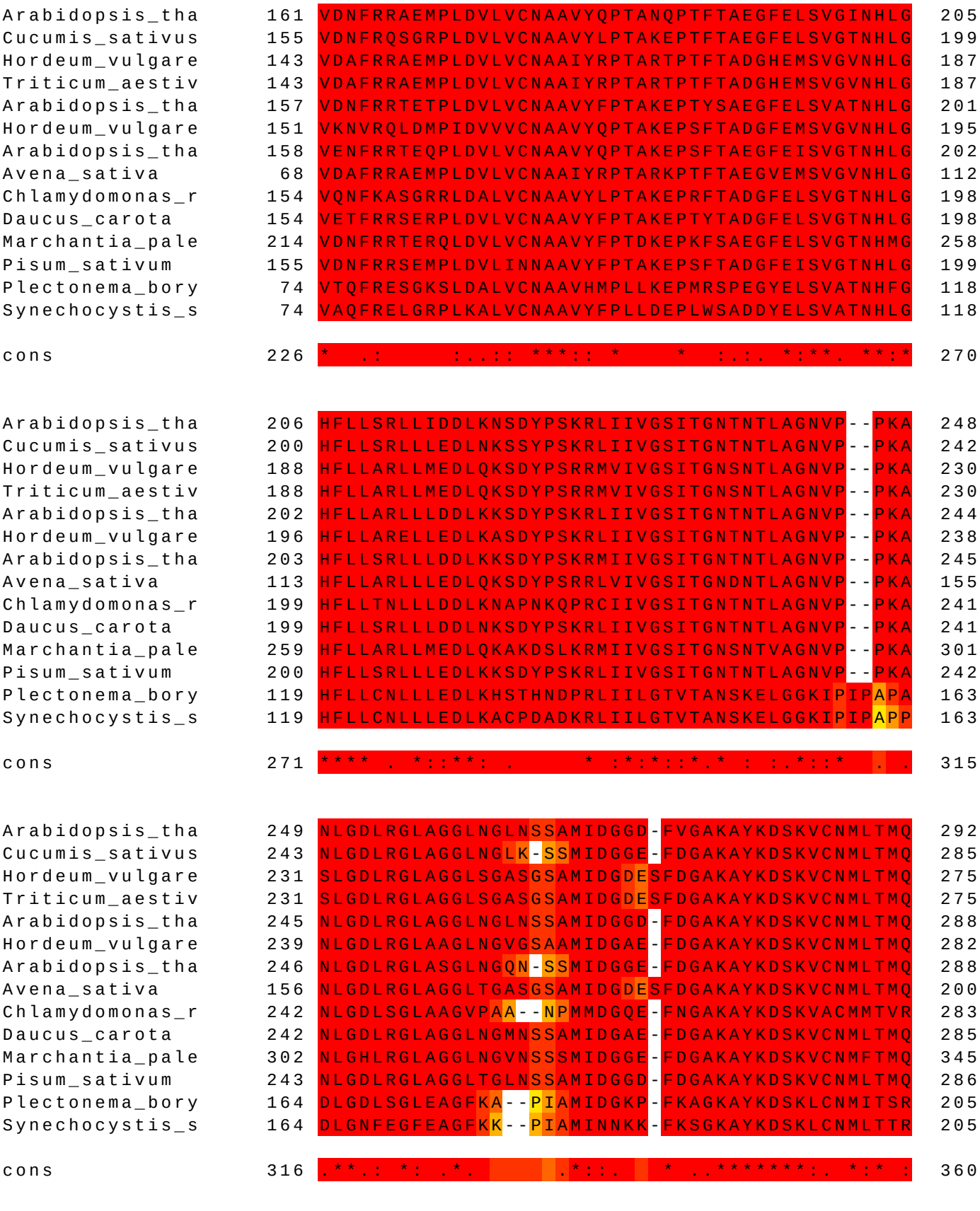
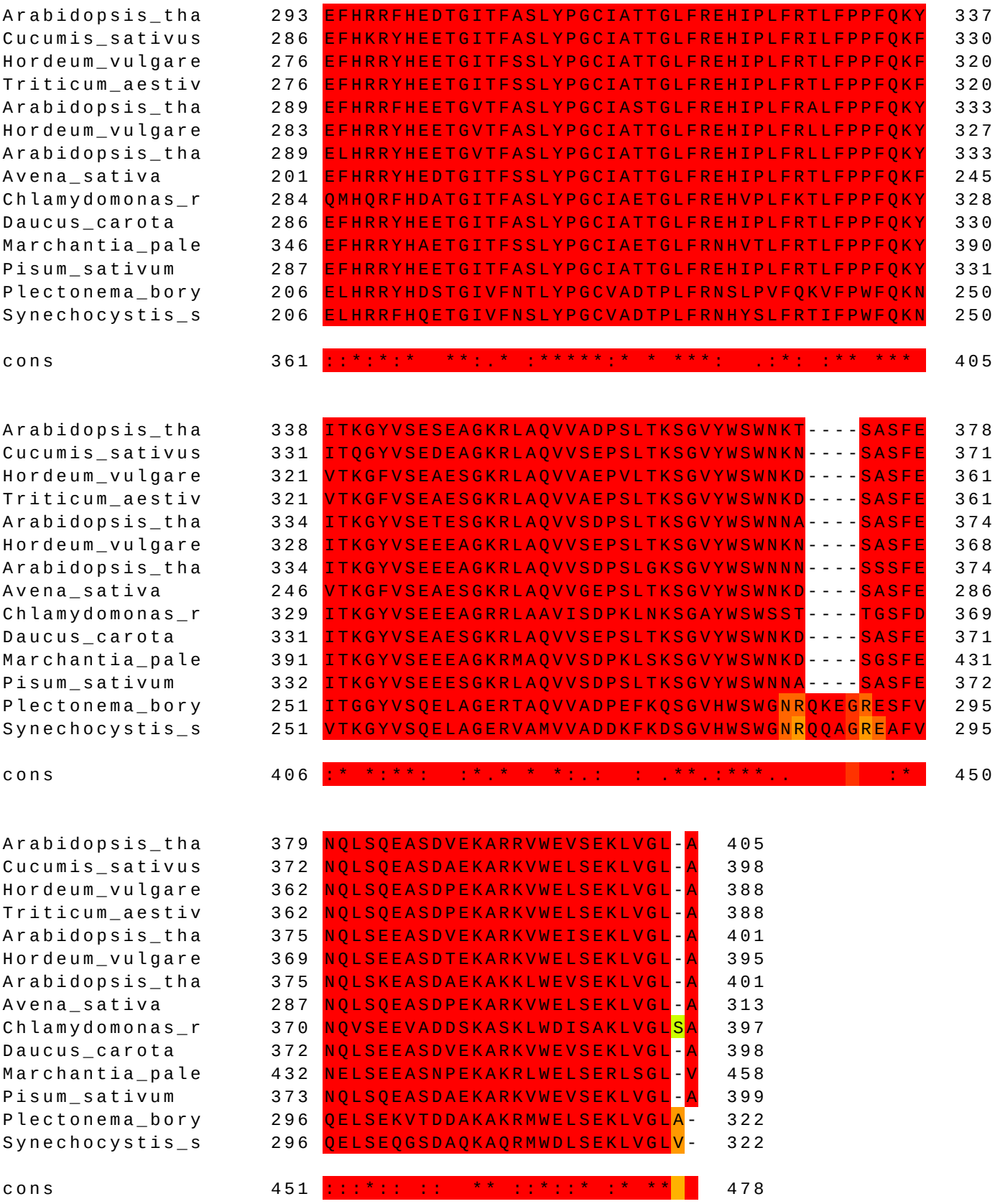

Arabidopsis_tha 35 F-GVS-LSEQSKADFV-SSSLRCKREQSLRNN-KAIIRAQAIATS 75
Cucumis_sativus 31 F-GIS-FSDHLKSEFS-SSTLRCKRE--LNQQ-IGAIRAQTTATE 69
Hordeum_vulgare 30 FLGVS-S----KAKKA-SL----------AVR-TQVATAPSPVTT 57
Triticum_aestiv 30 FLGVS-S----KAKKA-SL----------AVR-TQVATAPSSVTT 57
Arabidopsis_tha 34 F-GAS-ITDQIKSEHG-SSSLRFKREQS--LR-NLAIRAQTAATS 72
Hordeum_vulgare 28 F-GVR-LADGLKLDAT-SLGLRTKR---VNTS-SVAIRAQAAAVS 65
Arabidopsis_tha 32 T-GSS-FSNHLRAEKI-STLLTIKEQRRQKPRFSTGIRAQTV-TA 72
Avena_sativa 1 ---------- 0
Chlamydomonas_r 24 P-AVA-VSGRTSSRVMPAPALAARSSV-A-R-TPLVVCAATATAP 63
Daucus_carota 31 F-GVT-FSDSLRTDFS-SLRTRRGCR--QISQ-TGAIRSQAVA-T 68
Marchantia_pale 91 L-GLR-MGEVAKFGGA-LLSVSTVA-ANLKSK-PGVLSV--NAVT 128
Pisum_sativum 31 F-GVSSLSDSLKGDFT-SSALRCK-E--LRQK-VGAVRAETAAPA 69
Plectonema_bory 5 ---------- 4
Synechocystis_s 5 ---------- 4
cons 91 135
Arabidopsis_tha 76 TPSV-TKSS----LDRKKTLRKGNVVVTGASSGLGLATAKALAET 115
Cucumis_sativus 70 SPAV-NKAT----PDGKKTLRKGSVVITGASSGLGLATAKALAET 109
Hordeum_vulgare 58 SPGS-TASS----PSGKKTLRQGVVVITGASSGLGLAAAKALAET 97
Triticum_aestiv 58 SPGS-ATAK----PSGKKTLRQGVVVITGASSGLGLAAAKALAET 97
Arabidopsis_tha 73 SPTV-TK-S----VDGKKTLRKGNVVVTGASSGLGLATAKALAET 111
Hordeum_vulgare 66 APTA-TPAS----PAGKKTVRTGNAIITGASSGLGLATAKALAES 105
Arabidopsis_tha 73 TPPA-NEAS----PEQKKTERKGTAVITGASSGLGLATAKALADT 112
Avena_sativa 1 ----------VVVITGASSGLGLAAAKALAET 22
Chlamydomonas_r 64 SPSLADKFKPNAIARVPATQQKQTAIITGASSGLGLNAAKALAAT 108
Daucus_carota 69 TPSV-NRAT----GEGKKTLRKGSVIITGASSGLGLATAKALAET 108
Marchantia_pale 129 APAE-TMNK----PSSKKTATKSTCIITGASSGLGLATAKALADT 168
Pisum_sativum 70 TPAV-NKSS----SEGKKTLRKGNVVITGASSGLGLATAKALAES 109
Plectonema_bory 5 ----------QKPTVVITGASSGVGLYAAKALVKR 29
Synechocystis_s 5 ----------MKPTVIITGASSGVGLYGAKALIDK 29
cons 136 :::******:** **** 180
Arabidopsis_tha 116 GKWHVIMACRDFLKAERAAQSAGMPKDSYTVMHLDLASLDSVRQF 160
Cucumis_sativus 110 GKWHVIMACRDFLKAERAAKSAGITKENYTVMHLDLASLDSVRQF 154
Hordeum_vulgare 98 GKWHVVMACRDFLKASKAAKAAGMADGSYTVMHLDLASLDSVRQF 142
Triticum_aestiv 98 GKWHVVMACRDFLKASKAAKAAGMADGSYTVMHLDLASLDSVRQF 142
Arabidopsis_tha 112 GKWNVIMACRDFLKAERAAKSVGMPKDSYTVMHLDLASLDSVRQF 156
Hordeum_vulgare 106 GKWHVIMACRDYLKTARAARAAGMPKGSYTIVHLDLASLDSVRQF 150
Arabidopsis_tha 113 GKWHVIMACRNFLKAEKAARSVGMSKEDYTVMHLDLASLESVKQF 157
Avena_sativa 23 GKWHVVMACRDFLKASKAAKAAGMADGSYTVMHLDLASLDSVRQF 67
Chlamydomonas_r 109 GEWHVVMACRDFLKAEQAAKKVGMPAGSYSILHLDLSSLESVRQF 153
Daucus_carota 109 GKWHVIMACRDFLKAERAAKSAGMPKENYTIMHLDLASLDSVRQF 153
Marchantia_pale 169 GEWHVIMACRDFLKAERAARSVGIPKDSYTVIHCDLASFDSVRAF 213
Pisum_sativum 110 GKWHVIMACRDYLKAARAAKSAGLAKENYTIMHLDLASLDSVRQF 154
Plectonema_bory 30 G-WHVVMACRNLEKADSAAKSLGMSPDSYTLMHIDLGSLDSVRKF 73
Synechocystis_s 30 G-WHVIMACRNLDKTQKVADELGFPKDSYTIIKLDLGYLDSVRRF 73
cons 181 * *:*:****: *: .* *:. .*:::: **. ::**: * 225


Arabidopsis_tha 161 VDNFRRAEMPLDVLVCNAAVYQPTANQPTFTAEGFELSVGINHLG 205
Cucumis_sativus 155 VDNFRQSGRPLDVLVCNAAVYLPTAKEPTFTAEGFELSVGTNHLG 199
Hordeum_vulgare 143 VDAFRRAEMPLDVLVCNAAIYRPTARTPTFTADGHEMSVGVNHLG 187
Triticum_aestiv 143 VDAFRRAEMPLDVLVCNAAIYRPTARTPTFTADGHEMSVGVNHLG 187
Arabidopsis_tha 157 VDNFRRTETPLDVLVCNAAVYFPTAKEPTYSAEGFELSVATNHLG 201
Hordeum_vulgare 151 VKNVRQLDMPIDVVVCNAAVYQPTAKEPSFTADGFEMSVGVNHLG 195
Arabidopsis_tha 158 VENFRRTEQPLDVLVCNAAVYQPTAKEPSFTAEGFEISVGTNHLG 202
Avena_sativa 68 VDAFRRAEMPLDVLVCNAAIYRPTARKPTFTAEGVEMSVGVNHLG 112
Chlamydomonas_r 154 VQNFKASGRRLDALVCNAAVYLPTAKEPRFTADGFELSVGTNHLG 198
Daucus_carota 154 VETFRRSERPLDVLVCNAAVYFPTAKEPTYTADGFELSVGTNHLG 198
Marchantia_pale 214 VDNFRRTERQLDVLVCNAAVYFPTDKEPKFSAEGFELSVGTNHMG 258
Pisum_sativum 155 VDNFRRSEMPLDVLINNAAVYFPTAKEPSFTADGFEISVGTNHLG 199
Plectonema_bory 74 VTQFRESGKSLDALVCNAAVHMPLLKEPMRSPEGYELSVATNHFG 118
Synechocystis_s 74 VAQFRELGRPLKALVCNAAVYFPLLDEPLWSADDYELSVATNHLG 118
cons 226 * .: :..:: ***:: * * :.:. *:**. **:* 270
Arabidopsis_tha 206 HFLLSRLLIDDLKNSDYPSKRLIIVGSITGNTNTLAGNVP--PKA 248
Cucumis_sativus 200 HFLLSRLLLEDLNKSSYPSKRLIIVGSITGNTNTLAGNVP--PKA 242
Hordeum_vulgare 188 HFLLARLLMEDLQKSDYPSRRMVIVGSITGNSNTLAGNVP--PKA 230
Triticum_aestiv 188 HFLLARLLMEDLQKSDYPSRRMVIVGSITGNSNTLAGNVP--PKA 230
Arabidopsis_tha 202 HFLLARLLLDDLKKSDYPSKRLIIVGSITGNTNTLAGNVP--PKA 244
Hordeum_vulgare 196 HFLLARELLEDLKASDYPSKRLIIVGSITGNTNTLAGNVP--PKA 238
Arabidopsis_tha 203 HFLLSRLLLDDLKKSDYPSKRMIIVGSITGNTNTLAGNVP--PKA 245
Avena_sativa 113 HFLLARLLLEDLQKSDYPSRRLVIVGSITGNDNTLAGNVP--PKA 155
Chlamydomonas_r 199 HFLLTNLLLDDLKNAPNKQPRCIIVGSITGNTNTLAGNVP--PKA 241
Daucus_carota 199 HFLLSRLLLDDLNKSDYPSKRLIIVGSITGNTNTLAGNVP--PKA 241
Marchantia_pale 259 HFLLARLLMEDLQKAKDSLKRMIIVGSITGNSNTVAGNVP--PKA 301
Pisum_sativum 200 HFLLSRLLLEDLKKSDYPSKRLIIVGSITGNTNTLAGNVP--PKA 242
Plectonema_bory 119 HFLLCNLLLEDLKHSTHNDPRLIILGTVTANSKELGGKIPIPAPA 163
Synechocystis_s 119 HFLLCNLLLEDLKACPDADKRLIILGTVTANSKELGGKIPIPAPP 163
cons 271 **** . *:**: . * :*:*::*.* : :.*::* . . 315
Arabidopsis_tha 249 NLGDLRGLAGGLNGLNSSAMIDGGD-FVGAKAYKDSKVCNMLTMQ 292
Cucumis_sativus 243 NLGDLRGLAGGLNGLK-SSMIDGGE-FDGAKAYKDSKVCNMLTMQ 285
Hordeum_vulgare 231 SLGDLRGLAGGLSGASGSAMIDGDESFDGAKAYKDSKVCNMLTMQ 275
Triticum_aestiv 231 SLGDLRGLAGGLSGASGSAMIDGDESFDGAKAYKDSKVCNMLTMQ 275
Arabidopsis_tha 245 NLGDLRGLAGGLNGLNSSAMIDGGD-FDGAKAYKDSKVCNMLTMQ 288
Hordeum_vulgare 239 NLGDLRGLAAGLNGVGSAAMIDGAE-FDGAKAYKDSKVCNMLTMQ 282
Arabidopsis_tha 246 NLGDLRGLASGLNGQN-SSMIDGGE-FDGAKAYKDSKVCNMLTMQ 288
Avena_sativa 156 NLGDLRGLAGGLTGASGSAMIDGDESFDGAKAYKDSKVCNMLTMQ 200
Chlamydomonas_r 242 NLGDLSGLAAGVPAA--NPMMDGQE-FNGAKAYKDSKVACMMTVR 283
Daucus_carota 242 NLGDLRGLAGGLNGMNSSAMIDGAE-FDGAKAYKDSKVCNMLTMQ 285
Marchantia_pale 302 NLGHLRGLAGGLNGVNSSSMIDGGE-FDGAKAYKDSKVCNMFTMQ 345
Pisum_sativum 243 NLGDLRGLAGGLTGLNSSAMIDGGD-FDGAKAYKDSKVCNMLTMQ 286
Plectonema_bory 164 DLGDLSGLEAGFKA--PIAMIDGKP-FKAGKAYKDSKLCNMITSR 205
Synechocystis_s 164 DLGNFEGFEAGFKK--PIAMINNKK-FKSGKAYKDSKLCNMLTTR 205
cons 316 .**.: *: .*. .*::. * ..******:. *:* : 360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Cucumis_sativus 286 EFHKRYHEETGITFASLYPGCIATTGLFREHIPLFRILFPPFQKF 330
Hordeum_vulgare 276 EFHRRYHEETGITFSSLYPGCIATTGLFREHIPLFRTLFPPFQKF 320
Triticum_aestiv 276 EFHRRYHEETGITFSSLYPGCIATTGLFREHIPLFRTLFPPFQKF 320
Arabidopsis_tha 289 EFHRRFHEETGVTFASLYPGCIASTGLFREHIPLFRALFPPFQKY 333
Hordeum_vulgare 283 EFHRRYHEETGVTFASLYPGCIATTGLFREHIPLFRLLFPPFQKY 327
Arabidopsis_tha 289 ELHRRYHEETGVTFASLYPGCIATTGLFREHIPLFRLLFPPFQKY 333
Avena_sativa 201 EFHRRYHEDTGITFSSLYPGCIATTGLFREHIPLFRTLFPPFQKF 245
Chlamydomonas_r 284 QMHQRFHDATGITFASLYPGCIAETGLFREHVPLFKTLFPPFQKY 328
Daucus_carota 286 EFHRRYHEETGITFASLYPGCIATTGLFREHIPLFRTLFPPFQKY 330
Marchantia_pale 346 EFHRRYHAETGITFSSLYPGCIAETGLFRNHVTLFRTLFPPFQKY 390
Pisum_sativum 287 EFHRRYHEETGITFASLYPGCIATTGLFREHIPLFRTLFPPFQKY 331
Plectonema_bory 206 ELHRRYHDSTGIVFNTLYPGCVADTPLFRNSLPVFQKVFPWFQKN 250
Synechocystis_s 206 ELHRRFHQETGIVFNSLYPGCVADTPLFRNHYSLFRTIFPWFQKN 250
cons 361 405
Arabidopsis_tha 338 ITKGYVSESEAGKRLAQVVADPSLTKSGVYWSWNKT----SASFE 378
Cucumis_sativus 331 ITQGYVSEDEAGKRLAQVVSEPSLTKSGVYWSWNKN----SASFE 371
Hordeum_vulgare 321 VTKGFVSEAESGKRLAQVVAEPVLTKSGVYWSWNKD----SASFE 361
Triticum_aestiv 321 VTKGFVSEAESGKRLAQVVAEPSLTKSGVYWSWNKD----SASFE 361
Arabidopsis_tha 334 ITKGYVSETESGKRLAQVVSDPSLTKSGVYWSWNNA----SASFE 374
Hordeum_vulgare 328 ITKGYVSEEEAGKRLAQVVSEPSLTKSGVYWSWNKN----SASFE 368
Arabidopsis_tha 334 ITKGYVSEEEAGKRLAQVVSDPSLGKSGVYWSWNNN----SSSFE 374
Avena_sativa 246 VTKGFVSEAESGKRLAQVVGEPSLTKSGVYWSWNKD----SASFE 286
Chlamydomonas_r 329 ITKGYVSEEEAGRRLAAVISDPKLNKSGAYWSWSST----TGSFD 369
Daucus_carota 331 ITKGYVSEAESGKRLAQVVSEPSLTKSGVYWSWNKD----SASFE 371
Marchantia_pale 391 ITKGYVSEEEAGKRMAQVVSDPKLSKSGVYWSWNKD----SGSFE 431
Pisum_sativum 332 ITKGYVSEEESGKRLAQVVSDPSLTKSGVYWSWNNA----SASFE 372
Plectonema_bory 251 ITGGYVSQELAGERTAQVVADPEFKQSGVHWSWGNRQKEGRESFV 295
Synechocystis_s 251 VTKGYVSQELAGERVAMVVADDKFKDSGVHWSWGNRQQAGREAFV 295
cons 406 450
Arabidopsis_tha 379 NQLSQEASDVEKARRVWEVSEKLVGL-A 405
Cucumis_sativus 372 NQLSQEASDAEKARKVWELSEKLVGL-A 398
Hordeum_vulgare 362 NQLSQEASDPEKARKVWELSEKLVGL-A 388
Triticum_aestiv 362 NQLSQEASDPEKARKVWELSEKLVGL-A 388
Arabidopsis_tha 375 NQLSEEASDVEKARKVWEISEKLVGL-A 401
Hordeum_vulgare 369 NQLSEEASDTEKARKVWELSEKLVGL-A 395
Arabidopsis_tha 375 NQLSKEASDAEKAKKLWEVSEKLVGL-A 401
Avena_sativa 287 NQLSQEASDPEKARKVWELSEKLVGL-A 313
Chlamydomonas_r 370 NQVSEEVADDSKASKLWDISAKLVGLSA 397
Daucus_carota 372 NQLSEEASDVEKARKVWEVSEKLVGL-A 398
Marchantia_pale 432 NELSEEASNPEKAKRLWELSERLSGL-V 458
Pisum_sativum 373 NQLSQEASDAEKARKVWEVSEKLVGL-A 399
Plectonema_bory 296 QELSEKVTDDAKAKRMWELSEKLVGLA- 322
Synechocystis_s 296 QELSEQGSDAQKAQRMWDLSEKLVGLV- 322
cons 451 478