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CheR2 Ht -----MSAFAPFKALVHQRCGLHLDGLAEARLFRAVAS 33
CheR3 Pa -----MQANGVWSLQ-----PLADMSAAEFRDWQVLLNRTGVVLEQRRTFLQASLTA 49
WspC Pa -----MNDRFERLLKSRIGLDASSVGSVIERAVRQ 31
CheR1 Pa -----MSAANADFELEFRVFLKTCGIVLGSNKQYLVSRLNK 37
CheR2 Pa ---MPTSTP-----SPVFGNQEYHYTREDFQQVVERLYRLTGISLAESKAQLVYSRLSR 51
CheR1 Ht MTEQRRERVVDAGQWTSSSQIERDLVLTADFTRIRELIYQRAGIVLAEHKREMVYSRLAK 60
CheR Ec ----MTSSLPCGQTSLLLQMTERLALSDAHFRRIISQLIYQRAGIVLADHKRDMVYNRLVR 56
CheR St ----MTSSLP SGQTSVLLQMTORLALSDAHFRRICQLIYQRAGIVLADHKRDMVYNRLVR 56
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CheR2 Ht LQASTGLTDITQLLKLSCDT---ALFDQFVSQLTVNETYFFREPDALDWLVTNYLPQRL 90
CheR3 Pa RMRELIGIGDYHSYRQVTDGPRGAVEWATLLDRLTVQETRRFRHPPSFELLERYLGERLR 109
WspC Pa RMSSGLALHDEDEYWMRLNGSP---GEVQALIEAVVVPETWFFRYPSFTTLARLAFERLP 88
CheR1 Pa LMEQQGIKSLGELVQRIQTQ-RG-GLREMVVDAMTTNETLWFRDTYFPEVLKQRVLPELI 95
CheR2 Pa RLRLRLRSGFAEYFTHLDREP---GEQQLFVNALTTNLTAFFREHHFPLLADLARRQLQ 108
CheR1 Ht RLRRHHGMTRFTDYLVRLEQPEA-KWEAFTNALTTNLTAFFREAHFPLLAEHIKN--- 116
CheR Ec RLRLSLGLTDFGHYLNLESNQHS-GEWQAFINSLTTNLTAFFREAHFPLLADHARR--- 112
CheR St RLRLALGLDDFGRYLSMLEANQNS-AEWQAFINALTTNLTAFFREAHFPILAEHARR--- 112
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CheR2 Ht -TTEQPPLSIFSAGCSSGEEPYSVAMMLFER---FGERAKALFTLTGGDLDHQVLAKARQ 146
CheR3 Pa REGMPRPWALWSVGCSSGEEPYSLAMCAAQVLR--GQEREDFFGVGTGDISLHALQARQ 167
WspC Pa SLGGGRALRILSLPCSTGEEPYSIVMALLD-----AGLSEYLFVDALDVSARVIERASL 143
CheR1 Pa KANGGQRLRIWSAACSSGQEPYLSMAIDEFEKTNLGQLKAGQIVATDLSGSMILTAAKA 155
CheR2 Pa ---RHRPLRIWSAAASTGEEPYSIAITLVE---ALGSFDPPVKIVASDIDTGVLD CARQ 161
CheR1 Ht ---KQDPVTIWCSAAASTGEEPYSIAMTLE---TLGAKASQAKVIATDIDTDALARARA 169
CheR Ec ---RSGEYRVWSAAASTGEEPYSIAMTLAD---TLGTAPGRWKVAFASDIDTEVLEKARS 165
CheR St ---RHGEYRVWSAAASTGEEPYSIAITLAD---ALGMAPGRWKVAFASDIDTEVLEKARS 165
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CheR2 Ht AVYGGMA-FRALSPAFFKRYFS---PHKGRYKLHEPLRQWVTFRPFNLLNANEDSPVGP 201
CheR3 Pa ANYPARK-LEQLEAGLVERYCERQ---ADGSFSVKILTERRVCCARLNVLDLAK-APWSG 222
WspC Pa GVIYGRNS-FRGDELGFRDRHFS---EVAEGYQLAEQVRRKVRFCGNLLDPGLLAGLAGEAP 198
CheR1 Pa GEYDTLAMGRGLSPERLQRYFDAQ---GPGRWAVKPAIRSRVEFRALNLLD-SY-ASLGK 210
CheR2 Pa GVIYPLER-LEQMPAPLKKRFFLRGTGPNAGKAVVEELRQLVEFRQINLLEADW-SIAGE 219
CheR1 Ht GVIYPLEQ-VRKIDEARVKRFFQKGTGNHAGFALIRPEVSALVEFLPPLNLLAPQW-PIKGP 227
CheR Ec GIYRHEE-LKNLTPQQLQRYFMRGTGPHEGLVVRQELANYVDFAPLNLLAKQY-TVPGP 223
CheR St GIYRLSE-LKTLSPQQLQRYFMRGTGPHEGLVVRQELANYVEFSSVNLLKQY-NVPGP 223
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CheR2 Ht FDVILFRNVSIFYDQQTTRRHIIHQQLSOLLAPNGILLCGVTEITLGNLGVFELTEAQGVFY 261
CheR3 Pa MDVIFCQNLLIYFRRWRREILNRLAERLAPGGLLVIGVGEVVDWVSHPELEPVADERVLA 282
WspC Pa YDFVFCRNLLIYFDRPTQSEVVEVLKRLRLSDGAMFIGPAEASLLSQHGMQPIGVPLSFV 258
CheR1 Pa FDMVFCRNVIYFSAEVKRDILLRHGTLKPGGYLFLGASEALNNLFDHYQMVCSPGII 270
CheR2 Pa LDAIFCRNVIYFDKPTQTRLLERMVALLRPEGLFFAGHSENFVHASHLVRVSVGGQTVYSP 279
CheR1 Ht FDAVFCRNIMIYFDKDTQSKILKRFPAPLMKPDGLLAFAGHSENFYSISDAFKLRGQTVYNL 287
CheR Ec FDAIFCRNVIYFDQTQQEILRRFVPLLPKPDGLLAFAGHSENFVSHLERRFTLRGQTVYAL 283
CheR St FDAIFCRNVIYFDKTTQEDILRRFVPLLPKPDGLLAFAGHSENFVSNLVRFSLRGQTVYAL 283
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CheR2 Ht FRHAEQPAIVPETPLQPSLLAMDNMAEDSITEDSLVAESANKQLALDNCTDVAPQAPRQ 321
CheR3 Pa FTRKGYSGT----- 291
WspC Pa FRRITSEAPRGA---RPKAV-----SDGARPVVAAAVERASIR-PSPPPPAKPRQ 303
CheR1 Pa YRAK----- 274
CheR2 Pa A----- 280
CheR1 Ht AKK----- 290
CheR Ec SKD----- 286
CheR St SKDKA----- 288

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CheR2 Ht HATEKEPTD-----SISHQLHTAHLRLNQNAFDDAATLLEALLEQQPWSIDALVLAGLV 375
CheR3 Pa ----- 291
WspC Pa RLSSLVPPASGQPLASPVGGEFDEIARLADAGQHREARAACERQLAARGPSATVFYWLGLL 363
CheR1 Pa ----- 274
CheR2 Pa ----- 280
CheR1 Ht ----- 290
CheR Ec ----- 286
CheR St ----- 288

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CheR2 <i>Ht</i>	ARWQORPQLAYEHFKRAIYVAPECWPAHFYLAELYR-QGELAD-KPLQKQRYAAVVRL	433
CheR3 <i>Pa</i>	-----	291
WspC <i>Pa</i>	SDVAGQEQAQDFYRKALYLEPQHAEALAHLAALLAARGDHAGARRLQQR--A-----	414
CheR1 <i>Pa</i>	-----	274
CheR2 <i>Pa</i>	-----	280
CheR1 <i>Ht</i>	-----	290
CheR <i>Ec</i>	-----	286
CheR <i>St</i>	-----	288

CheR2 <i>Ht</i>	TTAPTSDGGLDTITPPLPPGDARFLAERYLDAVNLTLASTSTTQGVG	480
CheR3 <i>Pa</i>	-----	291
WspC <i>Pa</i>	ARGVNKDG-----	422
CheR1 <i>Pa</i>	-----	274
CheR2 <i>Pa</i>	-----	280
CheR1 <i>Ht</i>	-----	290
CheR <i>Ec</i>	-----	286
CheR <i>St</i>	-----	288