

CheY\_Ecoli : -----ADKELKFLVVDDFSTMRRIVRNLLKELGFNNVEEAE-  
 CheY\_Styph : -----MADKELKFLVVDDFSTMRRIVRNLLKELGFNNVEEAE-  
 CheY\_Ypest : -----MADKNLRFLLVVDDFSTMRRIVRNLLKELGFHNVEEAE-  
 CheY\_Vpara : -----MNKNMKILIVDDFSTMRRIVKNLLRDLGFNNTQEAD-  
 CheY\_Cjeju : -----MKLLVVDDSSSTMRRIVKNTLTRLGHDDVLEAE-  
 CheY\_Bburg : MDKRSASLEESKKALIADDSLFMRKNLIKILSQLGFKEFLEAE-  
 CheY\_Afulg : -----MPKVLIVDDTAFMRKLLRNILFSGGFDIAGEAE-  
 AS11\_Hsapi : -----DESVMVVEDDPAVRMLVNLVLDDELGYT-VHPAA-

CheY\_Ecoli : -----DGVDALNKLQAG-GYGFVISDWNMPN-MDGLELL  
 CheY\_Styph : -----DGVDALNKLQAG-GFGFIISDWNMPN-MDGLELL  
 CheY\_Ypest : -----DGVDALNKLQAG-GFDFVVS DWNMPN-MDGLDLL  
 CheY\_Vpara : -----DGLTALPMLKKG-DFDFVVT DWNMPG-MQGIDLL  
 CheY\_Cjeju : -----HGVEAWDLLTKNEDVKVLITDWNMPE-MNGLELV  
 CheY\_Bburg : -----DGIQAVKEFEKQNNIDLITLDITMMG-MDGITAL  
 CheY\_Afulg : -----NGKQAVEMY-KQLKPDIVTMDIVMPE-MNGIEAL  
 AS11\_Hsapi : -----DARTALPLLESRLRIDLLVTDVGLPG-MNGRQLA

CheY\_Ecoli : KTIRADGA--MSALPVLMTAEAKK-ENIIAAAQAGASGYVVKP  
 CheY\_Styph : KTIRADSA--MSALPVLMTAEAKK-ENIIAAAQAGASGYVVKP  
 CheY\_Ypest : KTIRTDGA--LATLPVLMTAEAKK-ENIIAAAQAGASGYVVKP  
 CheY\_Vpara : KHIRADAE--LKHLPVLMITAEAKR-EQIIIEAAQAGVNGYIVKP  
 CheY\_Cjeju : KKVRAEKK--YEDMPIIMVTTEGGK-AEVITALKAGVNNYIVKP  
 CheY\_Bburg : ERMYEINKKLLKKVNILMVTAEIGKQ-ELIQKALS LGARGYITKP  
 CheY\_Afulg : KAIKKIDP----SAKVVMTAVGQE-QMVKAAIKLGAKGYIVKP  
 AS11\_Hsapi : EVARQHRP----GLKVLVFMVTGYAEK-AAERQGFLEPGMDLIAKP

CheY\_Ecoli : FTAATLEEKLNKIFEKLG-----  
 CheY\_Styph : FTAATLEEKLNKIFEKLG-----  
 CheY\_Ypest : FTAATLEEKLNKIFEKLG-----  
 CheY\_Vpara : FTAATLKEKLEKIFERL-----  
 CheY\_Cjeju : FTPQVLKEKLEDVLGTGSGEGAAE  
 CheY\_Bburg : FKKEQIIEQIKLLD-----  
 CheY\_Afulg : FQAPKVIIEELKKVAGMG-----  
 AS11\_Hsapi : FTLDALANRVRDMIGQTS-----