

CLUSTAL W(1.4) multiple sequence alignment

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atr97147      -----TTTTGTTGGATTCAAAGCGGGTGTAAAGGAGTAA
atr97140      -----TTTTGTTGGATTCAAAGCGGGTGTAAAGGAGTAA
glb97139      ATGTCACCACAAACAGAGACTAAAGCTTTTGTGGATTCAAAGCGGGTGTAAAGGAGTAC
glb97137      ATGTCACCACAAACAGAGACTAAAGCTTTTGTGGATTCAAAGCGGGTGTAAAGGAGTAC
glab97141     ATGTCACCACAAACAGAGACTAAAGCTTTTGTGGATTCAAAGCGGGTGTAAAGGAGTAC
rub97121     ATGTCACCACAAACAGAGACTAAAGCTTTTGTGGATTCAAAGCGGGTGTAAAGGAGTAC
rub97148     ATGTCACCACAAACAGAGACTAAAGCTTTTGTGGATTCAAAGCGGGTGTAAAGGAGTAC
sng97123     ATGTCACCACAAACAGAGACTAAAGCTTTTGTGGATTCAAAGCGGGTGTAAAGGAGTAC
sng97138     ATGTCACCACAAACAGAGACTAAAGCTTTTGTGGATTCAAAGCGGGTGTAAAGGAGTAC
sng97156     ATGTCACCACAAACAGAGACTAAAGCTTTTGTGGATTCAAAGCGGGTGTAAAGGAGTAC
harvpurp     -----TTTTGTTGGATTCAAAGCGGGTGTAAAGAGTAC
harvcap      -----GTTGGATTCAAAGCGGGTGTAAAGAGTAC
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atr97147      AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGGCAGCATTTC
atr97140      AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGGCAGCATTTC
glb97139      AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGATATCTTGGTAGCATTTC
glb97137      AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGATATCTTGGTAGCATTTC
glab97141     AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGATATCTTGGTAGCATTTC
rub97121     AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGATATCTTGGTAGCATTTC
rub97148     AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGATATCTTGGTAGCATTTC
sng97123     AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGATATCTTGGCAGCATTTC
sng97138     AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGATATCTTGGCAGCATTTC
sng97156     AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGATATCTTGGTAGCATTTC
harvpurp     AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGATATCTTGGCAGCATTTC
harvcap      AAATTGACTTATTATACTCCTGAATACGAAACCAAAGATACTGATATCTTGGCAGCATTTC
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atr97147      CGAGTAACTCCTCAACCTGGAGTTCGCCCCGAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
atr97140      CGAGTAACTCCTCAACCTGGAGTTCGCCCCGAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
glb97139      CGAGTAACTCCTCAACCTGGAGTTCGCCCCGAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
glb97137      CGAGTAACTCCTCAACCTGGAGTTCGCCCCGAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
glab97141     CGAGTAACTCCTCAACCTGGAGTTCGCCCCGAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
rub97121     CGAGTAACTCCTCAACCTGGAGTTCGCCCCGAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
rub97148     CGAGTAACTCCTCAACCTGGAGTTCGCCCCGAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
sng97123     CGAGTAACTCCTCAACCTGGAGTTCGCCCCAAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
sng97138     CGAGTAACTCCTCAACCTGGAGTTCGCCCCAAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
sng97156     CGAGTAACTCCTCAACCTGGAGTTCGCCCCGAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
harvpurp     CGAGTAACTCCTCAACCTGGAGTTCGCCCCGAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
harvcap      CGAGTAACTCCTCAACCTGGAGTTCGCCCCGAAGAAGCAGGGGCTGCAGTAGCTGCCGAA
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atr97147 TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTACCAGCCTTGATCGTTAC  
atr97140 TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTACCAGCCTTGATCGTTAC  
glb97139 TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTAC-AGCCTTGATCGTTAC  
glb97137 TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTAC-AGCCTTGATCGTTAC  
glab97141 TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTAC-AGCCTTGATCGTTAC  
rub97121 TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTAC-AGCCTTGATCGTTAC  
rub97148 TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTAC-AGCCTTGATCGTTAC  
sng97123 TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTAC-AGCCTTGATCGTTAC  
sng97138 TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTAC-AGCCTTGATCGTTAC  
sng97156 TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTAC-AGCCTTGATCGTTAC  
harvpurp TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTACCAGCCTTGATCGTTAC  
harvcap TCTTCTACTGGTACATGGACAACACTGTGTGGACCGATGGACTTACCAGCCTTGATCGTTAC  
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atr97147 AAAGGACGATGCTACCACATTGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
atr97140 AAAGGACGATGCTACCACATTGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
glb97139 AAAGGACGATGCTACCACATTGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
glb97137 AAAGGACGATGCTACCACATTGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
glab97141 AAAGGACGATGCTACCACATTGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
rub97121 AAAGGACGATGCTACCACATTGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
rub97148 AAAGGACGATGCTACCACATTGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
sng97123 AAAGGACGATGCTACCACATTGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
sng97138 AAAGGACGATGCTACCACATTGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
sng97156 AAAGGACGATGCTACCACATTGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
harvpurp AAAGGACGATGCTACCACATCGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
harvcap AAAGGACGATGCTACCACATCGAGCCCGTTCCTGGAGAAAACAGATCAATATATCTGTTAT  
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atr97147 GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
atr97140 GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
glb97139 GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
glb97137 GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
glab97141 GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
rub97121 GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
rub97148 GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
sng97123 GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
sng97138 GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
sng97156 GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
harvpurp GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
harvcap GTAGCTTACCCTTTAGACCTTTTTGAAGAAGGTTCTGTTACTAACATGTTTACTTCCATT  
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atr97147 GTAGGAAATGTATTTGGATTCAAAGCCTTGCCTGCTCTAAGTCTGGAAGATCTGCGAATC  
atr97140 GTAGGAAATGTATTTGGATTCAAAGCCTTGCCTGCTCTAAGTCTGGAAGATCTGCGAATC  
glb97139 GTAGGAAATGTATTTGGATTCAAAGTCTTGTGTGCTCTACGTCTGGAAGATCTGCGAATC  
glb97137 GTAGGAAATGTATTTGGATTCAAAGTCTTGTGTGCTCTACGTCTGGAAGATCTGCGAATC  
glab97141 GTAGGAAATTTATTTGGATTCAAAGTCTTGTGTGCTCTACGTCTGGAAGATCTGCGAATC  
rub97121 GTAGGAAATGTATTTGGATTCAAAGCCTTGTGTGCTCTACGTCTGGAAGATCTGCGAATC  
rub97148 GTAGGAAATGTATTTGGATTCAAAGCCTTGTGTGCTCTACGTCTGGAAGATCTGCGAATC  
sng97123 GTAGGAAATGTATTTGGATTCAAAGCCTTGTGTGCTCTACGTCTGGAAGATCTGCGAATC  
sng97138 GTAGGAAATGTATTTGGATTCAAAGCCTTGTGTGCTCTACGTCTGGAAGATCTGCGAATC  
sng97156 GTAGGAAATGTATTTGGATTCAAAGCCTTGTGTGCTCTACGTCTGGAAGATCTGCGAATC  
harvpurp GTAGGAAATGTATTTGGATTCAAAGCCTTGCCTGCTCTACGTCTGGAAGATCTGCGAATC  
harvcap GTAGGAAATGTATTTGGATTCAAAGCCTTGCCTGCTCTACGTCTGGAAGATCTGCGAATC  
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atr97147 CCTCCTGCTTATGTTAAAACTTTCCAAGGCCCGCCTCATGGGATCCAAAGTGAGAGAGAT  
atr97140 CCTCCTGCTTATGTTAAAACTTTCCAAGGCCCGCCTCATGGGATCCAAAGTGAGAGAGAT  
glb97139 CCTCCTGCTTATGTTAAAACTTTCCAAGGCCCGCCTCATGGGATCCAAAGTGAGAGAGAT  
glb97137 CCTCCTGCTTATGTTAAAACTTTCCAAGGCCCGCCTCATGGGATCCAAAGTGAGAGAGAT  
glab97141 CCTCCTGCTTATGTTAAAACTTTCCAAGGCCCGCCTCATGGGATCCAAAGTGAGAGAGAT  
rub97121 CCTCCTGCTTATGTTAAAACTTTCCAAGGCCCGCCTCATGGGATCCAAAGTGAGAGAGAT  
rub97148 CCTCCTGCTTATGTTAAAACTTTCCAAGGCCCGCCTCATGGGATCCAAAGTGAGAGAGAT  
sng97123 CCTCCTGCTTATGTTAAAACTTTCCAAGGCCCGCCTCATGGGATCCAAAGTGAGAGAGAT  
sng97138 CCTCCTGCTTATGTTAAAACTTTCCAAGGCCCGCCTCATGGGATCCAAAGTGAGAGAGAT  
sng97156 CCTCCTGCTTATGTTAAAACTTTCCAAGGCCCGCCTCATGGGATCCAAAGTGAGAGAGAT  
harvpurp CCTCCTGCTTATATTTAAAACTTTCCAAGGTCGCCTCATGGGATCCAAAGTGAGAGAGAT  
harvcap CCTCCTGCTTATATTTAAAACTTTCCAAGGTCGCCTCATGGGATCCAAAGTGAGAGAGAT  
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atr97147 AAATTGAACAAGTATGGTCGTCCTCTGTTGGGATGTACTATTAACCTAAATTTGGGGTTA  
atr97140 AAATTGAACAAGTATGGTCGTCCTCTGTTGGGATGTACTATTAACCTAAATTTGGGGTTA  
glb97139 AAATTGAACAAGTATGGTCGTCCTCTGTTGGGATGTACTATATAATATAA--TGGGGTTA  
glb97137 AAATTGAACAAGTATGGTCGTCCTCTGTTGGGATGTACTATATAATATAA--TGGGGTTA  
glab97141 AAATTGAACAAGTATGGTCGTCCTCTGTTGGGATGTACTATATAATATAA--TGGGGTTA  
rub97121 AAATTGAACAAGTATGGTCGTCCTCTGTTGGGATGTACTATATAATATAA--TGGGGTTA  
rub97148 AAATTGAACAAGTATGGTCGTCCTCTGTTGGGATGTACTATATAATATAA--TGGGGTTA  
sng97123 AAATTGAACAAGTATGGTCGTCCTCTATTGGGATGTACTATATAAT-----GGGGTTA  
sng97138 AAATTGAACAAGTATGGTCGTCCTCTATTGGGATGTACTATATAAT-----TGGGGTTA  
sng97156 AAATTGAACAAGTATGGTCGTCCTCTGTTGGGATGTACTATATAATATAA--TGGGGTTA  
harvpurp AAATTGAACAAGTATGGTCGTCCTCTGTTGGGATGTACTATTAACCTAAATTTGGGGTTA  
harvcap AAATTGAACAAGTATGGTCGTCCTCTGTTGGGATGTACTATTAACCTAAATTTGGGGTTA  
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atr97147 TCCGCTAAAAACTACGGTAGAGCATGTTATGAATGTCTTCGTGGTGGACTTTATTTTACC  
atr97140 TCCGCTAAAAACTACGGTAGAGCATGTTATGAATGTCTTCGTGGTGGACTTTATTTTACC  
glb97139 TCCGCTAAAAACTACGGTAGAGCATGTTATGAATGTCTTCGTGGTGGACTTGATTTTACC  
glb97137 TCCGCTAAAAACTACGGTAGAGCATGTTATGAATGTCTTCGTGGTGGACTTGATTTTACC  
glab97141 TCCGCTAAAAACTACGGTAGAGCATGTTATGAATGTCTTCGTGGTGGACTTGATTTTACC  
rub97121 TCCGCTAAAAACTACGGTAGAGCATGTTATGAATGTCTTCGTGGTGGACTTGATTTTACC  
rub97148 TCCGCTAAAAACTACGGTAGAGCATGTTATGAATGTCTTCGTGGTGGACTTGATTTTACC  
sng97123 TCCGCTAAAAACTACGGGAGAGCATGTTATGAATGTCTTCGTGGTGGACTTGATTTTACC  
sng97138 TCCGCTAAAAACTACGGGAGAGCATGTTATGAATGTCTTCGTGGTGGACTTGATTTTACC  
sng97156 TCCGCTAAAAACTACGGTAGAGCATGTTATGAATGTCTTCGTGGTGGACTTGATTTTACC  
harvpurp TCCGCTAAAAACTATGGTAGAGCATGTTATGAATGTCTTCGCGGTGGACTTGATTTTACC  
harvcap TCCGCTAAAAACTATGGTAGAGCATGTTATGAATGTCTTCGCGGTGGGCTTGATTTTACC  
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atr97147 AAAGATGATGAGAATGTGAACTCCCAGCCATTTATGCGTTGGAGAGATCGTTTCTTATTT  
atr97140 AAAGATGATGAGAATGTGAACTCCCAGCCATTTATGCGTTGGAGAGATCGTTTCTTATTT  
glb97139 AAAGATGATTAGAACATGAACTCCCAGCCATTTATGCGTTGGAGAGATTGTTTCTTATTT  
glb97137 AAAGATGATTAGAACATGAACTCCCAGCCATTTATGCGTTGGAGAGATTGTTTCTTATTT  
glab97141 AAAGATGATTAGAACATGAACTCCCAGCCATTTATGCGTTGGAGAGATTGTTTCTTATTT  
rub97121 AAAGATGATTAGAACGTGAACTCCCAGCCATTTATGCGTTGGAGAGATTGTTTCTTATTT  
rub97148 AAAGATGATTAGAACGTGAACTCCCAGCCATTTATGCGTTGGAGAGATTGTTTCTTATTT  
sng97123 AAAGATGATGAGAACGTGAACTCCCAGCTATTTATGCGTTGGAGAGATTGTTTCTTATTT  
sng97138 AAAGATGATGAGAACGTGAACTCCCAGCTATTTATGCGTTGGAGAGATTGTTTCTTATTT  
sng97156 AAAGATGATTAGAACGTGAACTCCCAGCCATTTATGCGTTGGAGAGATTGTTTCTTATTT  
harvpurp AAAGATGATGAGAACGTGAACTCTCAGCCATTTATGCGTTGGAGAGATCGTTTCTTATTT  
harvcap AAAGATGATGAGAACGTGAACTCCCAGCCATTTATGCGTTGGAGAGATCGTTTCTTATTT  
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atr97147 TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGCGAAATCAAAGGGCATTACTTG  
atr97140 TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGCGAAATCAAAGGGCATTACTTG  
glb97139 TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGAGAAATCAAAGGGCATTACTTG  
glb97137 TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGAGAAATCAAAGGGCATTACTTG  
glab97141 TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGAGAAATCAAAGGGCATTACTTG  
rub97121 TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGCGAAATCAAAGGGCATTACTTG  
rub97148 TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGCGAAATCAAAGGGCATTACTTG  
sng97123 TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGCGAAATCAAAGGGCATTACTTG  
sng97138 TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGCGAAATCAAAGGGCATTACTTG  
sng97156 TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGCGAAATCAAAGGGCATTACTTG  
harvpurp TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGCGAAATCAAAGGGCATTACTTG  
harvcap TGTGCCGAAGCAATTTATAAAGCACAGGCTGAAACAGGCGAAATCAAAGGGCATTACTTG  
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atr97147 AATGCTACTGCGGGTACATGCGAAGAAATGATCAAAAAGATCTGTATTTGCTAGAGAGTTG  
atr97140 AATGCTACTGCGGGTACATGCGAAGAAATGATCAAAAAGATCTGTATTTGCTAGAGAGTTG  
glb97139 AATGCTACTGCGGGTACATGCGCAGAAATGATCAAAAAGAGCTGTATTTGCTAGAGAATTG  
glb97137 AATGCTACTGCGGGTACATGCGCAGAAATGATCAAAAAGAGCTGTATTTGCTAGAGAATTG  
glab97141 AATGCTACTGCGGGTACATGCGCAGAAATGATCAAAAAGAGCTGTATTTGCTAGAGAATTG  
rub97121 AATGCTACTGCGGGTACATGCGAAGAAATGATCAAAAAGAGCTGTATTTGCTAGAGAATTG  
rub97148 AATGCTACTGCGGGTACATGCGAAGAAATGATCAAAAAGAGCTGTATTTGCTAGAGAATTG  
sng97123 AATGCTACTGCGGGTACATGCGAAGAAATGATCAAAAAGAGCTGTATTTGCTAGAGAATTG  
sng97138 AATGCTACTGCGGGTACATGCGAAGAAATGATCAAAAAGAGCTGTATTTGCTAGAGAATTG  
sng97156 AATGCTACTGCGGGTACATGCGAAGAAATGATCAAAAAGAGCTGTATTTGCTAGAGAATTG  
harvpurp AATGCTACTGCGGGTACATGCGAAGAAATGATCAAAAAGAGCTGTATTTGCTAGAGAATTG  
harvcap AATGCTACTGCGGGTACATGCGAAGAAATGATCAAAAAGAGCTGTATTTGCTAGAGAATTG  
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atr97147 GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCTTG  
atr97140 GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCTTG  
glb97139 GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCCTG  
glb97137 GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCCTG  
glab97141 GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCTTG  
rub97121 GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCTTG  
rub97148 GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCTTG  
sng97123 GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCTTG  
sng97138 GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCTTG  
sng97156 GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCTTG  
harvpurp GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCTTG  
harvcap GGAGTTCCTATCGTAATGCATGACTACTTAAACAGGAGGATTTACTGCAAATACTAGCTTG  
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atr97147 GCTCATTATTGCCGAGATAATGGACTACTTCTTCACATTACCCGTGCAATGCATGCAGTT  
atr97140 GCTCATTATTGCCGAGATAATGGACTACTTCTTCACATTACCCGTGCAATGCATGCAGTT  
glb97139 GCTCATTATTGCCGGGATAATGGACTACTTCTTCACATTACCCGTGCAATGCATGCAGTT  
glb97137 GCTCATTATTGCCGGGATAATGGACTACTTCTTCACATTACCCGTGCAATGCATGCAGTT  
glab97141 GCTCATTATTGCCGGGATAATGGACTACTTCTTCACATTACCCGTGCAATGCATGCAGTT  
rub97121 GCTCATTATTGCCGGGATAATGGACTACTTCTTCACATTACCCGTGCAATGCATGCAGTT  
rub97148 GCTCATTATTGCCGGGATAATGGACTACTTCTTCACATTACCCGTGCAATGCATGCAGTT  
sng97123 GCTCATTATTGCCGAGATAATGGACTACTTCTTCACATTACTGTGCAATGCATGCAGTT  
sng97138 GCTCATTATTGCCGAGATAATGGACTACTTCTTCACATTACTGTGCAATGCATGCAGTT  
sng97156 GCTCATTATTGCCGGGATAATGGACTACTTCTTCACATTACCCGTGCAATGCATGCAGTT  
harvpurp GCTCATTATTGCCGAGATAATGGACTACTTCTTCACATTACCCGTGCAATGCATGCAGTT  
harvcap GCTCATTATTGCCGAGATAATGGACTACTTCTTCACATTACCCGTGCAATGCATGCAGTT  
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atr97147 ATTGATAGACAGAAGAACCATGGTATACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
atr97140 ATTGATAGACAGAAGAACCATGGTATACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
glb97139 ATTAATAGACAGAAGAACCATGGTATACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
glb97137 ATTAATAGACAGAAGAACCATGGTATACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
glab97141 ATTAATAGACAGAAGAACCATGGTATACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
rub97121 ATTAATAGACAGAAGAACCATGGTATACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
rub97148 ATTAATAGACAGAAGAACCATGGTATACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
sng97123 ATTAATAGACAGAAGAACCATG-----CACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
sng97138 ATTAATAGACAGAAGAACCATG-----CACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
sng97156 ATTAATAGACAGAAGAACCATGGTATACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
harvpurp ATTGATAGACAGAAGAACCATGGTATCCACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
harvcap ATTGATAGACAGAAGAACCATGGTATACTTCCGTGTACTAGCTAAAGCGTTACGTATG  
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atr97147 TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
atr97140 TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
glb97139 TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
glb97137 TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
glab97141 TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
rub97121 TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
rub97148 TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
sng97123 TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
sng97138 TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
sng97156 TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
harvpurp TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
harvcap TCTGGTGGAGATCATATTCCTCTGGTACTGTAGTAGGTAAACTTGAAGGAGAAAGAGAC  
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atr97147 AT-CACTTTTGGCTTTGTTGATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
atr97140 AT-CACTTTTGGCTTTGTTGATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
glb97139 AT-CACTTTTGGCTTTGTTGATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
glb97137 AT-CACTTTTGGCTTTGTTGATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
glab97141 AT-CACTTTTGGCTTTGTTGATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
rub97121 AT-CACTTTTGGCTTTGTTTATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
rub97148 AT-CACTTTTGGCTTTGTTTATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
sng97123 ATTCCTTTTGGCTTTGTTGATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
sng97138 AT-CACTTTTGGCTTTGTTGATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
sng97156 AT-CACTTTTGGCTTTGTTGATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
harvpurp AT-CACTTTGGGCTTTGTTGATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
harvcap AT-CACTTTGGGCTTTGTTGATTTACTGCGTGATGATTTTATTGAAAAAGATCGAAGTTCG  
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atr97147 CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTGTTATTCTGTGGCTTCAGG  
atr97140 CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTGTTATTCTGTGGCTTCAGG  
glb97139 CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTATTATTCTGTGGCTTCAGG  
glb97137 CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGT-TTATTCTGTGGCTTCAGG  
glab97141 CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTATTATTCTGTGGCTTCAGG  
rub97121 CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTGTTATTCTGTGGCTTCAGG  
rub97148 CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTGTTATTCTGTGGCTTCAGG  
sng97123 CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTGTTATTCTGTGGCTTCAGG  
sng97138 CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTGTTATTCTGTGGCTTCAGG  
sng97156 CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTGTTATTCTGTGGCTTCAGG  
harvpurp CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTGTTATTCTGTGGCTTCAGG  
harvcap CGGTATTTATTTCACTCAAGATTGGGTCTCTCTACCAGGTGTTCTTCTGTGGCTTCAGG  
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atr97147 GGGTATTCACACTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
atr97140 GGGTATTCACACTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
glb97139 GGGTATTCACGTTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
glb97137 GGGTATTCACGTTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
glab97141 GGGTATTCACGTTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
rub97121 GGGTATTCACGTTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
rub97148 GGGTATTCACGTTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
sng97123 GGGTATTCACGTTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
sng97138 GGGTATTCACGTTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
sng97156 GGGTATTCACGTTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
harvpurp GGGTATTCACGTTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
harvcap GGGTATTCACGTTTGGCATATGCCTGCTCTGACCGAGATCTTTGGGGATGATTCCGTACT  
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atr97147 GCAGTTCGGCGAAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGGGCCGTAAGTAA  
atr97140 GCAGTTCGGCGAAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGGGCCGTAAGTAA  
glb97139 GCAGTTCGGCGGAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGGGCCGTAAGTAA  
glb97137 GCAGTTCGGCGGAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGGGCCGTAAGTAA  
glab97141 GCAGTTCGGCGGAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGGGCCGTAAGTAA  
rub97121 GCAGTTCGGCGGAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGGGCCGTAAGTAA  
rub97148 GCAGTTCGGCGGAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGGGCCGTAAGTAA  
sng97123 GCAGTTCGGCGGAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGGGCCGTAAGTAA  
sng97138 GCAGTTCGGCGGAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGGGCCGTAAGTAA  
sng97156 GCAGTTCGGCGGAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGGGCCGTAAGTAA  
harvpurp ACAGTTCGGCGGAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGTGCCGTAAGTAA  
harvcap ACAGTTCGGCGGAGGAACCTTTAGGACACCCTTGGGGTAATGCGCCAGGTGCCGTAAGTAA  
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