

CLUSTAL O(1.2.4) multiple sequence alignment

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JQ678788.1      -----AGTTGTTTAGCTGGAAAAGATGATGGAGCCGGGC
34
NC_003070.9:c26796532-26795052  CGACACACTTCCACATTCATGATTCCACAAATTCTAATGGATTTGAACAAATAT-GGGAC
59
                                     *   **   ****   **   *   *   **   *

JQ678788.1      CGTTTTTCTTTGAACCTTCGCCGTCGTCGGCGGTTTGCCAGCAAGGTGGTGGTGGCAAC
94
NC_003070.9:c26796532-26795052  CAATTTTATTTGTTTCAACTCCTAAATGTGGGACCAATTAACAAGGT--TGATGTATTC
117
*   *****   *   *   **   *   *   *   *   *****   **   **   *

JQ678788.1      ATGTTGTTCTCGCAATCCTGATCACGGTTTTCGAGGG--CAAAGATCGATGATGGGAT
152
NC_003070.9:c26796532-26795052  TTCTTGTTCTTCTCGTTTCTTAATAGTTTGATTGAGCATGCACGCTTCTCTCAACCCAC
177
*   *****   **   *   **   *   *   *   *   *   ***   **   **   *   *

JQ678788.1      TGATGGA--TCAGGAGAGCTCACGG-----AGGCGACCTTTTTTCAGCTCCTCCTCGTC
204
NC_003070.9:c26796532-26795052  CAGTCCAAGTCAAACCTCCTCAAGCCATCCCCTAATCCTATATATCAGTTTCTTCTCGCA
237
*   *   ***   *****   *   *   *   *   *   *   *   *   *   *   *

JQ678788.1      GCAGGAC-----GAACTGTTCGAC--GAGGAATACTACGACGAGCAGCT----
246
NC_003070.9:c26796532-26795052  AACCACCTCACAATCTATCAACAGTTTTAAAAAAGACATAACTCAACCAATCTCACTTT
297
*   *   ***   ***   *   *   *   *   *   *   *   *   *   *

JQ678788.1      ----GCCGGAGAAGAAGCGCCGCTCACTTCTGACCAGGTGCATATGCTGGAGAAGAGC
301
NC_003070.9:c26796532-26795052  GAAAAAGACATGAACAAAACCCGCCTTCGTGCTCTCTC---CCCACCTCCGGTAACTA
353
*   *   *   *   *   *   *   *   *   *   *   *   *   *   *   *

JQ678788.1      TTTGAGACAGAGAACAAGCTGGAGCCGGAGCG-AAAGACGCAGCTGGCCAAGAAGCTAGG
360
NC_003070.9:c26796532-26795052  TTT-TCTCTTTAAACAGTATTAATCATGTGTTTTGCTATTACATCACCAAATTATTCAT
412
***   *   ****   *   *   *   *   *   *   *   **   *   ****   *

JQ678788.1      ACTGCAGCCGAGACAGGTGGCCGTGTGGTTCAGAACC GCCGCTCGGTGGAAGACCAA
420
NC_003070.9:c26796532-26795052  ----AGTTTAAAGAGGTCGATGTAGAATTCAT-----AGATATACATG
451
*   *   *   *   *   *   *   *   *   *   *   *   *   *   *

JQ678788.1      GCAGCTCGAGCGGATTACGACCTTCTCAAGTCTTCTATGACACCCTTTT-----
471
NC_003070.9:c26796532-26795052  TGTACATACGTGACTTTGTGACGATATATCGTTTTAATTTGTAAATTTTGATCCCTTCT
511
*   *   *   **   ***   *   *   **   **   *   **   *   ***

JQ678788.1      -GTCTGATTACGACTCCATCCTCAAGGAGAATCAGAAGCTCAAATCCCAGGTGGTTTCCA
530
NC_003070.9:c26796532-26795052  CTTAGGTATGCAACACCGTAAGAGATGTCGAT-----TGAGAGGTCGAAA---
556
*   *   *   *   *   *   *   *   *   *   *   *   *   *   *

JQ678788.1      TAAACGAGAAGCTTGAGGTAAGAGCAGGCTAGTAGCACAAAAGCAACAGCATTTGCAG
590
NC_003070.9:c26796532-26795052  -CTACGTAAGGCCAGAAGTTAAACAA-CGCAACTTCTCAAAGATGAAGACGATCTCATC
614
***   *   **   *   **   *****   *   *   *   **   **   *   **   *

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JQ678788.1  
634  
NC\_003070.9:c26796532-26795052  
674

CGGA-----TGATCACGATGACGAGAAGCGCGGC-----CCTCTTCTTCCAGCC  
CTCAAGCTTCATGCACTTCTTGGCAATAGGTTTCGTATTCACTTCTTATTCTTTAATTC  
\* \*        \*\* \*        \*\* \* \* \* \*        \* \*        \* \*        \* \*

JQ678788.1  
689  
NC\_003070.9:c26796532-26795052  
733

GGTGATCAGTTGACGGAGGTTGTTCCGATAACTAGTCTCCAGTA---TAGCTGCAG--CG  
AATAGTAATGTGAACG-GTACGTGCTAATAATCATTTTTGATGTTATGTTTTTTCAGATGG  
\* \* \*        \*\*\* \* \*        \*\* \*        \*\*\*\* \* \* \*        \*\*        \*        \*        \*\*\*        \*

JQ678788.1  
735  
NC\_003070.9:c26796532-26795052  
793

TCA-AGGTG---GA-----GGACCGCCTGAGCTCAGGGAGCGGAGGAAGTGCCGT  
TCATTGATAGCGGGAAGATTGCCAGGACGAACCGACAACGAAGTTAGGATCCATTGGGAA  
\*\*\*        \* \*        \*\*        \*\*\*\*        \* \* \*        \*        \*        \*\*\*        \*        \*\*

JQ678788.1  
794  
NC\_003070.9:c26796532-26795052  
851

GGTGGACGAGGCC-GAAGGCCCTCAGCCTGTGGACAGCAGTGATTCTATAATTTCCCAA  
ACTTACCTAAAAAGGAAGCTCGTAAAAATGGAATCG--ACCCAACCAATCATCGTCTCC  
\*        \* \*        \*\*\*\*        \* \* \*        \*\* \* \*        \*        \*\*        \*\*        \*\*        \*

JQ678788.1  
830  
NC\_003070.9:c26796532-26795052  
911

ACA-----ACATC-----CACAATTACTACTCTCATGATCATGACA  
ACCATCACACCAACTACATTTCTAGACGTCACCTCCATTCTTCACATAAGGAACATGAAA  
\*\*        \*\* \*        \* \*        \*\*\*        \*        \* \*        \*\*        \*\*\*\*\*        \*

JQ678788.1  
870  
NC\_003070.9:c26796532-26795052  
971

CTCATCATCATCATCATCATCAATACACGGCGCCACA-----  
CCAAGATTATTAGTGATCAATCTTCTTCGGTATCCGAATCATGTGGTGTAAACAATTTTGC  
\*        \*        \*        \*        \*        \*\*\*\*        \*        \*        \*        \*

JQ678788.1  
923  
NC\_003070.9:c26796532-26795052  
1031

--TGATCATGTAGAACATCATCGTAGAGGAGTCCACTCAGAAGAAGATGACGGTA-----  
CCATTCCAAGTACCAATTGCTCGGAGGATAGTACTAGTACCGGACGAAGTCATTTGCCTG  
\* \*        \*        \*        \*        \*        \*        \*        \*        \*        \*        \*        \*

JQ678788.1  
970  
NC\_003070.9:c26796532-26795052  
1091

-----GCGATGACGGCCAGTGTTACTTCT--CCGATGTCTTTGCAGCCGCAGCA  
ACCTAAACATTGGTCTCATCCCGGCCGTGACTTCTTTGCCAGCTCTTTGCCTTCAGGACT  
\*        \*        \*        \*        \*\*        \*\*\*\*\*        \*        \*        \*\*\*\*\*        \*        \*

JQ678788.1  
999  
NC\_003070.9:c26796532-26795052  
1151

GCGGAGCAGCAAGCAG-----CACAGGAGGAAGG-----  
CTAGCGAATCCTCTACCAATGGTTCAACAGGTCAAGAAACGTTCTTCTATTCCGATGAG  
\*        \*        \*        \*        \*        \*\*        \*        \*\*\*

JQ678788.1  
1008  
NC\_003070.9:c26796532-26795052  
1211

-----TGTTTCTTT-----  
AAATGGTGTATTTGTTTGTACACATTTGTTATATTACAAATGCACATATTATAATATTCA  
\*        \*\*\*        \*\*\*

JQ678788.1  
1027  
NC\_003070.9:c26796532-26795052  
1271

-----GAACTGGTGGGGATGGTCA  
CTAGAGAGATGGTATAACGATGTTTGAAATATGTTAATCCTGAATTGGACCGGCTGGTCA  
\* \* \*        \*        \*        \*        \*        \*        \*        \*        \*        \*        \*

JQ678788.1  
1034

TAAATGG-----

NC\_003070.9:c26796532-26795052  
1331

TTGAACAAC TATTCTCTTAAATGTCCGGTTCTGTTTT CAGTGATTAGTATTATAGTAGAT

\* \*

JQ678788.1  
1034  
NC\_003070.9:c26796532-26795052  
1391

-----  
CGTTAATAACTAACCGACGATAACCGCTGCTTATTTGATCAATCAAGCTGTAAGAAATTA

JQ678788.1  
1047  
NC\_003070.9:c26796532-26795052  
1451

-----CTAAATCCCCTAA  
TAGCTAATACAGCAATGTTAACGGTGACATTGACGGGAAGTATTAATTA ACTCTCTTAA

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JQ678788.1  
NC\_003070.9:c26796532-26795052

ATTG-----  
AATGGACAAGTATGTTCA TTTTCCTCCAAA  
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1051  
1481